

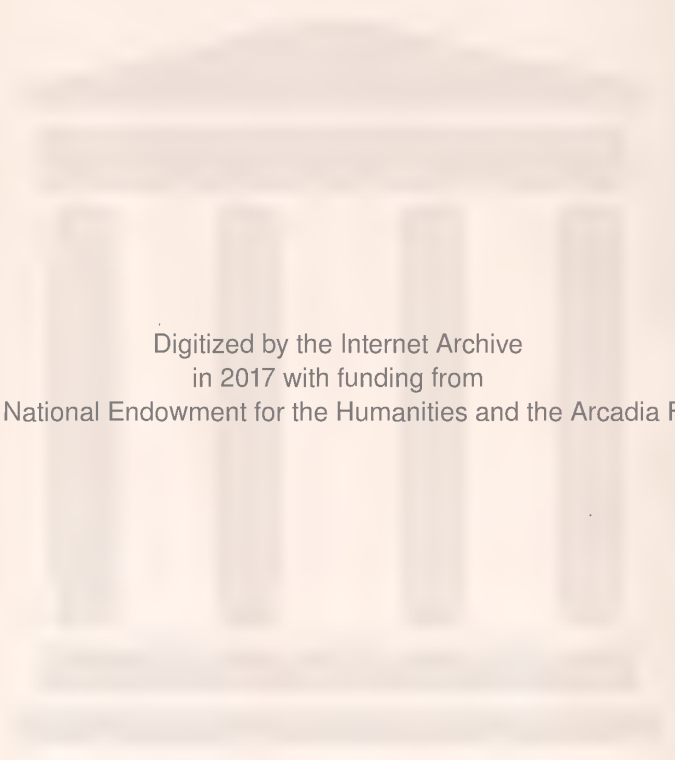


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LANDON B. EDWARDS, M. D.,

EDITOR AND PROPRIETOR.

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Henry F. Campbell



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Original Communications.

ART. I.—**Biographical Sketch of Henry Fraser Campbell, A. M., M. D., of Augusta, Georgia,** Professor of Operative Surgery and Gynecology, in Medical Department of the University of Georgia. By LANDON B. EDWARDS, M. D., Richmond, Va.

A collected record of the labors and writings of a man, for a long time widely known in any profession or calling, cannot fail to interest a large circle of his fellows. In the medical profession, at the present time, this statement is pre-eminently true. We live in an era of free inter-communication; abundant journalism has afforded the opportunity both for record and promulgation of every good thought or valuable device which the man, of either industry or genius, may have happened to develop. Each one writes his history in desultory episodes; and but a scrap of his life-work becomes familiar to any one reader. As the author of this or of that contribution, or as the promulgator of some one particular idea—approved or not—or as the cultivator of one special department, and performer of a particular class of operations, a limited number of journal-readers become more or less familiar with the names of their brethren, as often as they read and lay aside their monthly periodicals or annual Society Transactions. No single one has a knowledge of the entire work of another—nor of him at all, beyond the particular paper just then engaging a passing interest.

To place in proper juxtaposition and outline, the entire collected labors of the subject of a sketch, and to identify with his name and *personnel*, the work he has been doing, is by far the most important function of the biographer. In but few instances does this kind of collation and association appear more appropriate or acceptable than as regards the subject of the present sketch.

Henry Fraser Campbell was born in the city of Savannah, Georgia, February 10th, 1824. His father, James Colgan Campbell, at the time a merchant in that port, was a native of County Antrim, Ireland, and belonged to a family of the Presbyterian Scotch-Irish Campbells. Dr. Campbell has adhered to the same faith—being an Elder in the First Presbyterian Church of Augusta. The father died in early manhood, during the infancy of the subject of this sketch. His mother, Mary R. (Eve) Campbell, a lady of fine intellectual endowments and high culture, was the only daughter of Joseph Eve, a name once familiar as connected with the early history of the cotton-gin, and as the inventor of the “brush and roller gin,” now used, with but slight modification, for the ginning of Sea-Island, or long-staple cotton. Like many a child of genius, this maternal ancestor of Dr. Campbell—inventor, poet, philanthropist and doctor—after many heroic struggles with adverse fortune, as the world would sum it up, “failed of success in life!” His epitaph, written on his death-bed by himself, is a simple and touching epitome of his life. It is copied from the slab over his grave, in the “Cottage Grave Yard” near Augusta:

“Here rests one, Fortune never favor’d;
He grew no wiser from the past;
But ever with perseverance labor’d
And still contended to the last;

In reservation, he’d a haven,
With constant hope still kept in view,
The blest abode—the promised Heaven
Of all who strive God’s will to do!”

This gentleman was the father of the venerable Professor Joseph A. Eve, of Augusta, and of the late Dr. Edward A. Eve, of Georgia. He was the uncle of the late distinguished Professor Paul F. Eve, of Nashville, Tennessee.

In intimate association with these near relatives and active

laborers in the profession, all three of them are claimed by Dr. Campbell as his preceptors and trainers in medicine and surgery, in the earlier periods of his life. His education and moral culture, with that of his only brother, Dr. Robert Campbell, were carefully superintended by his mother, generously aided by his uncle, the late Robert Campbell, of Augusta.

Having received a very thorough academic education, supplemented by a classical course under a private tutor, and having begun the study of medicine at the age of fifteen, Dr. Campbell entered the Medical College of Georgia (now the Medical Department of the University of Georgia), in November, 1840, and was graduated thence in March, 1842, at the age of eighteen. The same year, he established himself in the general practice of medicine in Augusta, where, except during the late war and during the winters of 1866-67 and 1867-68, he has since remained.

Though engaged in a consulting practice, in all the branches, over a widely extended region of his own and the adjoining States, Dr. Campbell has, for many years past, made specialties of surgery and gynæcology. Of his more notable operations may be here mentioned forty-seven cases of lithotomy, forty-five of which were successful. His operation on the male has been invariably that of Dupuytren. In this special class of operations, the profession is indebted to Dr. Campbell for the invention of the *grooved tampon en chemise*—an instrument which vastly lessens the danger of fatal hæmorrhage, the great source of mortality in adult lithotomy. We find also recorded by him, sixteen cases of gangrenous inflammation from gun-shot wounds, arrested by ligation of the main trunk. The first of these “curative ligations” (which were all, except one, done in rapid succession during the war), was made June 5th, 1862, in the Military Hospitals at Richmond. These ligations, together with the cases of urinary calculus, above referred to, will be more fully considered in connection with his literary contributions. In gynæcic practice, the sliding-hook forceps, for the operation in vesico-vaginal fistula, the soft-rubber spring-stem pessary for uterine flexions, the cushioned protean pessary for uterine versions, and the pneumatic repositor for the “self-replacement” of uterine dislocations, are all well known inventions of Dr. Campbell.

As a teacher, the labors of Dr. Campbell have been quite varied—he having occupied chairs relating to some five or six different branches of medicine, thus accounting, perhaps, in some measure, for the distinct variety marking the subjects which have engaged his earnest investigation, as will be shown in the discussion of his published contributions. They may be thus briefly summarized: From the date of his graduation in 1842, to 1854, he was Demonstrator and Assistant Demonstrator of Anatomy; from 1854 to 1857, he was Professor of Comparative, Surgical and Microscopical Anatomy; from 1857 to 1866, he was Professor of Anatomy; and from 1868 to the present time, he has been Professor of Operative Surgery and Gynæcology, in the Medical Department of the University of Georgia. During this period, he was clinical lecturer in Jackson Street Hospital, the City Hospital, and in the Freedman's Hospital of Augusta. In the winter of 1866-67, he was Professor of Anatomy; and in the winter of 1867-68, Professor of Surgery in the New Orleans School of Medicine, and Clinical Lecturer in Charity Hospital. In the winter of 1868-69, he was Professor of Operative Surgery in the Medical College of Georgia. As a lecturer, he is ready, facile and comprehensive—always extemporaneous, without even a note either to systematize or to prompt the course of his discussion. Attention of the students is fixed more by the interest he himself takes in, and gives to the subject, than by any particular grace of manner or oratory in the speaker.

In 1852, in connection with his brother, Dr. Robert Campbell, long and intimately associated with him in practice, he established in Augusta, Georgia, the Jackson Street Hospital, an institution at that time greatly needed for the treatment of chronic and surgical cases among the negro population of the Southern States. This institution was founded upon the most liberal principles; it had fifty beds and an ample hall for clinical lectures. It was provided with every comfort—equal to those of the best hospitals for white patients—and while its establishment did credit to the benevolence, as well as good judgment of its founders, its ample patronage and support well vindicated the kindness and humanity of the Southern people, in the care and attention they

were willing to secure, at liberal cost, for the sick and afflicted among their dependents. Jackson Street Hospital continued in active operation until after the war, when it was superseded by the establishment of "Freedmen's Hospitals" in every community, and which are supported out of the public funds.

During the Confederate war, immediately after the first battle of Manassas, Dr. Campbell repaired to Virginia and attached himself, as a volunteer surgeon, to the extensive hospitals for the wounded, at Culpeper Court House, Virginia. He was commissioned regularly as a surgeon of the Confederate Army, September 2d, 1861, and immediately assigned to duty as Medical Director of, and Consulting Surgeon of the Georgia Military Hospitals in Richmond, Virginia. At the same time, he was a member of the Army Examining Board for medical officers. In these two capacities he continued to serve until the end of the war. During this service, among the large number of ligations and other operations he performed, those for "*the radical cure of inflammation*" were most important. Immediately after the surrender, he accepted a call to the chair of Anatomy, in the New Orleans School of Medicine, from which chair, in the winter of 1867-68, he was transferred to that of Surgery. During his connection with this College, besides his regular clinical lectures in Charity Hospital, he delivered a special course on the Anatomy, Physiology and Pathology of the Nervous System, in that Institution.

On his acceptance of the second call to New Orleans, his colleagues of the Augusta faculty, in filling his chair of Anatomy, until then temporarily supplied, created an eighth chair, to which no duties were assigned. Having to resign in New Orleans on account of impaired health, this new chair was offered Dr. Campbell—Operative Surgery and Gynecology being given as the departments of his own selection. In these two kindred branches he has continued, after occupying such a variety of positions, to serve his alma mater as professor and clinical lecturer, from the winter of 1869 to the present time.

Rather perversely determining, at the early age of fifteen, while still far short in the completion of his academic course,

to begin the study of medicine, Dr. Campbell disappointed the generous intention of his friends in regard to a thorough college curriculum. He made, however, good progress in the classics under an able private tutor, but yet entered the Medical College of Georgia to take his first course of lectures at sixteen. Having become prominent as an anatomical student, he was at once appointed, on his graduation, two years after, as Assistant Demonstrator; from this he rose to Demonstrator, and finally to Professor of Anatomy in the same college. In the exercise of these several functions of teacher and lecturer, but especially in the more difficult and widely scanned performances of essayist and journalist, it may be well supposed that the youthful doctor had reason to miss the systematic training and stored up erudition of the college course he had put aside; and to regret the impulse which had projected him so prematurely into the profession. Laborious private study, a wide scope of systematic reading and unremitting self-culture in everything subsidiary to the attainment of facility, as well as profundity in both speaking and writing, soon accomplished for him, we think, far more than any perfunctory attendance at even the best of literary colleges could have done. He acquired knowledge as it was wanted, and the kind he had need for—as it were, making for himself the tools he required for his work.

Dr. Campbell must have begun very early to make contributions by his pen to the literature of the profession—certainly as early as 1845. From this time, we find frequent papers sent by him to the medical press—his favorite medium at that time being the *Southern Medical and Surgical Journal*, published at Augusta. Of this journal he finally, in conjunction with his brother, Dr. Robert Campbell, became the senior editor, five volumes of which are the creditable result of their joint labors—from 1857 to 1861.

Of the literary labors of Dr. Campbell, it is difficult to give any consistent or systematic presentation, on account of their variety and of the unkindred and diverse nature of the subjects discussed. Few medical writers in this country have worked in so wide a field, or presented themselves with a personality recognizable in so many distinct departments. As

physiologist and pathologist, as surgeon, as gynæcologist, and finally as sanitarian, we find copious contributions from his pen—each interesting, to a certain extent, a distinct class of readers, to whom his name and contributions are quite familiar; while by the others, he is scarcely recognized as the same man. In order, therefore, to give a *résumé* of that which is to remain as the life-work of our subject, we must endeavor to condense, under these several distinct heads, some of his more important contributions to the literature of the profession. Some of these papers involve a historic discussion not long since quite familiar.

PHYSIOLOGY AND PATHOLOGY OF THE NERVOUS SYSTEM.—From a very early period of his professional life, Dr. Campbell has devoted much attention to the study of the nervous system as the controlling influence in all normal and pathological action. On May 2d, 1850, he read before the Medical Society of Augusta, Georgia, an essay on “The Influence of Dentition in Producing Disease.” The article was published in the *Southern Medical and Surgical Journal*, Vol. VI, June, 1850, pp. 18. This paper was prepared in answer to the question then before the Society: “Has the Process of Dentition any Influence in the Production of the Diarrhœa and other Disturbances in the System of the Infant, Commonly Attributed to ‘Teething,’ and in What Manner is such Influence Exerted?” Always a student and most ardent admirer of the great English physiologist, Marshall Hall, and thoroughly imbued with his investigations relating to the discovery and establishment of the function of reflex motory action, our essayist, in the adoption and explanation of the affirmative side of this question, presented a clear *analogy* between the excito-motory system and the function he was about to *propose* in explanation of the perverted secretory and nutritive action characterizing the disturbances of dentition.

“We have seen, that local irritation can, through the excito-motory system, produce convulsions, by the reflex function of the nerves, the sensory branches of the fifth pair becoming excitator to the *motory spinal* nerves; and so, may we justly infer, do these same branches, under certain circumstances, become *excitator* to the *secretory* filaments of the *sympa-*

thetic, distributed so abundantly to the intestinal canal, by a transmission of this irritation through the various ganglia with which it is connected. Thus the irritation at first produces simply an *exaltation* of the innervation of the secretory surfaces, and secretion is more *active* than normal, producing *simple diarrhœa*. A continuance of the irritation *alters the character of the secretion*, and we have the various morbid discharges observable during this period. This *increase and change* in the secretion are effected by the *agency of the altered function of the nerves upon the arteries* from which these secretions are eliminated."

In substantiation of the above clearly expressed and entirely original doctrine of reflex vaso-motor action, he refers to experiments and observations—old and new—from those of Pourfour du Petit on the dog in 1732, and of Dupuy on the horse; to those of John Reid, as well as to the writings of Xavier Bichat and of J. F. Lobstein, down to the time of Todd and Bowman; all showing, most clearly, that wherever the processes of nutrition and secretion are effected, it is alone by the entire control over, and agency of, the *ganglionic filaments upon the movements of the blood-vessels*.

"And further, we have seen," he continues, "that pathology as well as experiments on the lower animals, establish its indispensableness to the due performance of these functions; and that whenever the supply of its innervation has been modified in, or cut off from, a particular part of the organism, that part immediately manifests symptoms of *impaired nutrition and altered secretion*."

But the object of Dr. Campbell on that occasion, was not so much to establish the instrumentality of the ganglia and filaments of the sympathetic system in the modification of vascular movement, and thereby in the control of nutrient and secretory action, as to demonstrate the, until then, unrecognized *reflex relation subsisting between the sensory branches of the cerebro-spinal system*, and these same vaso-motor nerves whose function in controlling the blood-vessels had long been conceded. To this modifying and controlling influence of the one over the other, he gave the appropriate name, afterwards adopted by Dr. Marshall Hall, of London, and others, of *The Excito-Secretory Function of the Nervous System*.

Three years after the publication of the views, a *résumé* of

which we have just presented, M. Claude Bernard, of France, alike distinguished for his profound knowledge of all that pertains to the history of discovery in the nervous system, as for the ingenuity and variety of his own experimental investigations, published in the *Gazette Médicale*, volume for 1853, some remarks on "The Reflex Actions of the Nervous System." In these, he referred one order of reflex phenomena to the sympathetic system, illustrating by some recent experiments upon the frog, as well as by many acts of nutrition and secretion, that such a relation subsists between the cerebro-spinal and ganglionic system of nerves, as well as between the sensory and motor portions of the cerebro-spinal system. To use his own words: "Two kinds of nerves are requisite for the production of these reflex phenomena of organic life: the first transmits the impression to the nervous centres; the second to the viscera." He gave several illustrations of the facts of such reflex secretory action, stating that these phenomena were identical with those occurring in the cerebro-spinal system of nerves, and denominated "*excito-motory*" by Dr. Marshall Hall. He further claimed, that his observation and presentation of the existence of such a reflex relation between the two systems was "a suggestion entirely new."

The above claim of M. Bernard's appearing entirely to ignore the investigations of Dr. Campbell on the same subject, published just three years before, was fully answered by him in a brief paper read before the American Medical Association at its sixth annual meeting, held in New York, May 3d, 1853. The title of this paper, as found in volume VI of the *Transactions of American Medical Association*, is, "*On the Sympathetic Nerve in Reflex Phenomena.*" In their reviews of the volume of that year, *The American Journal of the Medical Sciences*, January, 1854, and *The New York Journal of Medicine*, March, 1854, both decide, that "priority in publication of the views in question is fully demonstrated to be with Dr. Campbell."

The courteous and friendly correspondence on the subject of priority of announcement in regard to the reflex excito-secretory function between Dr. Marshall Hall, of London,

and the subject of the present sketch will be remembered by many not yet old in the profession. In the American reprint of *The London Lancet* for March, 1857, will be found Dr. Hall's announcement of a system of excito-secretory nerves in the following connection, and in the following terms:

"In a memoir read at the Royal Society, in February, 1837, I announced a system of *excito-motory* nerves.

"I believe I may now announce a system or sub-system of *excito-secretory nerves* not less extensive." "Henceforth the diastaltic nervous system must be divided into two sub-systems: I. The *excito-motory*; II. The *excito-secretory*.

"The former is extended to the entire muscular system; the latter is diffused over the general system as the blood is diffused over the system.

"The pathology of the *excito-secretory* sub-system remains to be investigated and traced. A partial keen current of air falling on *any* portion of the skin may induce inflammation in *any* susceptible internal organ. An extensive burn or scald is apt to produce pneumonia."

On the reading of the above communication from Dr. Marshall Hall, in the *London Lancet*, Dr. Campbell presented to him a full catalogue and *résumé* of his own frequent publications on the subject, and in a letter* which, for exemplary courtesy, and for profound and affectionate respect, has seldom been equalled in any reclamation made by one author upon another, for the recognition of his labors in a common field, he called attention to the priority of his claim.

As might well have been expected, it was soon clearly revealed that the revered and noble English philosopher and philanthropist had never been cognizant of the contributions of his American co-laborer in a portion of the splendid field his own genius had opened to mankind. Without hesitation—even while the shadow of death was beginning to darken the path of life before him, he made haste to indite, in manly and cordial terms, but with a decision equally poised and doing justice to the last degree to all, a letter to the *London Lancet* of May 2d, 1857—to Dr. Campbell first, to Claude Bernard second, and last of all to himself. Here is

*See *Southern Medical and Surgical Journal*, April, 1857; also *London Lancet*, May 2d, 1857; also the volume entitled "*The Secretary and the Excito-Secretory System of Nerves*." Philadelphia, 1858.

his unselfish and impartial adjudication of the tripartite claim:

"It would be unjust to deny, that Dr. Campbell has the merit of having first called attention to the excito-secretory sub-system, in the year 1850, and that he imposed this very designation in 1853. So far, Dr. Campbell's claims are undeniable, and I would say, '*palmas qui meruit ferat.*'"

"I arrive at this conclusion: the *idea* and the *designation* of the excito-secretory action belong to Dr. Campbell, but his details are limited to pathology and observation. The elaborate *experimental* demonstration of reflex excito-secretory action is the result of the experimental labors of M. Claude Bernard. And now I say, '*suum cuique.*'"

"My own claim is of a very different character, and I renounce every other. It consists in the vast *generalization* of the excito-secretory action throughout the system."

"There is, perhaps, not a point in the general cutaneous surface, in which tetanus—an excito-motor effect—may not originate; there is scarcely a point in which internal inflammation—an excito-secretory effect—may not be excited. *Every* point of the animal economy is in *solidarite* by reflex excito-secretory action with every other!"

"I trust Dr. Campbell will be satisfied with my adjudication. There is, in the *excito-secretory* function, as applied to pathology, an ample field of inquiry for his life's career, and it is *indisputably his own*. He first detected it, gave it its designation, and saw its vast importance.

I am, sir, your obedient servant,

April, 1857.

MARSHALL HALL."

The above fair and wise adjudication, respectively recognizing the exact right of each claimant in the important achievement, must have been most satisfactory to Dr. Campbell. During the same year, we find, in the volume of his collected Essays on the Nervous System,* the following dedication: "To Marshall Hall, M. D., F. R. S., Member of the Institute of France, and author of that grand induction of modern physiology, *The Principle of Reflex Nervous Action*, this collection of Essays on the Secretory and Excito-Secretory System is respectfully inscribed, in high admiration of his genius, and in heartfelt acknowledgement of his liberality.

BY THE AUTHOR."

**The Secretory and the Excito-Secretory System*, pp. 135. Philadelphia, 1857. J. B. Lippincott & Co.

The printed letter addressed to Dr. Marshall Hall, had also been sent to several prominent physiologists. With the pamphlet sent to Sir Benjamin Brodie, Vice President of the Royal Society, a private note had been added. Sir Benjamin's reply being brief and pertinent to the claim of originality in the investigation, we here transfer the exact words:

"14 SAVILLE Row, May 20th, 1857.

"*My Dear Sir*,—I am much gratified by learning that you have found something to interest you in my little volume.* The writing it has been the amusement of my leisure hours when at my house in the country, where, during the last few years, I have passed several months annually.

I have read your paper on the Excito-Secretory System of Nerves, which certainly fully establishes your claim to originality in the investigation.

I have had no opportunity of seeing Dr. Marshall Hall since I received your communication. I believe he is staying at the seaside, and, I am sorry to add, that he is laboring under very serious disease.

I am, dear sir, your faithful servant,

B. C. BRODIE.

"*Dr. H. F. Campbell, Augusta, Ga., U. S.*"

A copy of the collected *Essays on the Nervous System* were sent through the American Minister, Hon. F. W. Pickens, to the Imperial Academy of Medicine at St. Petersburg. The following letter of Mr. Doubouvitsky, the President, officially reports the opinion of the Academy, and their endorsement of Dr. Marshall Hall's adjudication. The letter is written in English, probably by Mr. Doubouvitsky himself, and is somewhat quaint in expression :

"ST. PETERSBOURG, March 28, 1859.

"Mr. Doubouvitsky, President to the Imperial Academy of Medicine at St. Petersburg, has the honor, in answer of the request of the most honorable Mr. Pickens, Envoy Extraordinary and Minister Plenipotentiary of the United States, to make the following remarks:

Firstly, He offers Mr. Pickens his warmest thanks for the most obliging *envoy* of the work of Dr. Knapp on the Origin and Laws of Epidemics, and the most interesting treatise of Dr. Campbell on The Excito-Secretory System of Nerves.

Then, as to this last *opus*, the Academy of St. Petersburg

* *Psychological Inquiries as to the Mental Faculties.* London, 1856.

is quite of the opinion of the celebrated physiologist, Marshall Hall, as to the discovery of the intimate 'nexus' [relation] between the peripheric nerves and the ganglionar system, which connexion explains the frequent occurrence of secretory phenomena from external stimuli; and though the facts designated by Dr. Campbell are true and long since known, the explication of them, and the very proper designation of the united forces from different energies, by 'excito-secretory system' belongs to Dr. Campbell as a most useful and honorable discovery.

Dr. Campbell will be very glad to know that a member of our Academy, Dr. Jaconbowitsch, has lately discovered three distinct histological elements in the brain and spinal marrow—star-like or motorian cells, little [minute ?] fusiform or sensory cells, and intermediate or ganglionar cells, and besides, fibres which unite them, not only similar to similar, but even ganglionar and motorian, and sensory and ganglionar cells. He has received the first Monthlon prize.

At this very parting, Mr. Doubouvitsky expresses his respectful and devoted feelings to Mr. Pickens.

To his Excellency, Mr. Pickens, *Envoy Extraordinary and Minister Plenipotentiary of the United States of America.*"

The above is a verbatim copy of the original communication from the Imperial Academy of St. Petersburg. Though extremely diplomatic in its mode of expression, it is, nevertheless, most valuable as the well considered and formally expressed cotemporaneous opinion of one of the oldest and most authoritative scientific bodies in Europe.* The microscopic investigations of Jaconbowitsch had excited very particular interest in the subject of the centric connections of the several elements of the nervous system. Indeed, it appears that his discovery at that time most aptly supplied the *anatomical basis* for the function recognized by Dr. Campbell. He was, *no doubt*, "very glad to know" that such a discovery had been made, substantiating his own views.

The writer of the present sketch has dwelt at some length upon the records relating to the first two papers of his subject, as he has found them in his published essays, and in manuscripts given for his perusal. Upon this clear presentation must rest hereafter, to a considerable extent, the perma-

*Founded by Catherine I about 1725.

ment recognition of his claim as the first promulgator of knowledge in regard to a most important function of the nervous system, never before recognized clearly, and only foreshadowed in the vague doctrines of sympathetic action.

Besides the three papers heretofore discussed, Dr. Campbell has written several other communications upon the reflex excito-secretory function. At the tenth annual meeting of the American Medical Association, held at Nashville, May, 1857, he obtained the prize offered by the Association—the title of this paper being “The Excito-Secretory System of Nerves: Its Relations to Physiology and Pathology.” See *Transactions*, vol. X, 1857.

5th. Classification of Febrile Diseases by the Nervous System. *Transactions Amer. Med. Association*, vol. X, 1857.

6th. Remarks on Meckel’s Ganglion—Its Influence on the Circulation of the Eye-ball. *Southern Med. and Surg. Jour.*, Feb., 1858.

7th. The Nervous System in Febrile Diseases, and the Classification of Fevers by the Nervous System, pp. 172. *Trans. Amer. Med. Association*, vol. XI, May, 1858.

In this discussion of the Nervous System, as it plays its role in febrile affections, will be found a wider application of the excito-secretory or reflex vaso-motor function, than has ever before or since been made, either by our author or by any other writer. A reprint of this paper was also sent to the Imperial Academy of Medicine; and the careful review given it by that body will be found in a second official letter of the President, to Hon. Mr. Pickens, the American minister. It appears that this paper secured to Dr. Campbell his corresponding membership:

“Mr. Doubouvitzky, President of the Imperial Academy of Medicine at St. Petersburg, has the honor to present his best respects to Mr. Pickens, minister of the United States, and entreats him to express to the Professor, Dr. Campbell, in his own name as well as from the members of the Imperial Academy, the best thanks for his interesting treatise or paper on the “Nervous System in Febrile Diseases;” which, proving the high controlling influence of the nervous system over all the organic processes or acts of human organism, not only serves as a proper basis for a new classifica-

tion of febrile diseases, but also "sisting" [being?], a contemporaneous doctrine of Neuropathology, counteracts in a proper way, the too material tendency which threatens to prevade the study of medicine. Since the evolution of the doctrine of the cellular pathology, whose author, the celebrated Professor Virchow, now in Berlin, stands at the head of a new school of pathology, which even has exceeded or over-grown the material tendencies of her leader. Though it cannot be totally denied that some processes of nutrition are completed with a certain degree of self-government, in the system of organic cells, which, since Schleiden and Swan, have acquired a more important signification in the physiological and pathological changes of human tissues. Nevertheless, the Academy thinks that the most rational analysis of the influence of the excito-secretory functions on nutrition, secretion, thermal and chemical changes, and the different alterations of the blood—is worthy of her full approbation and of every encouragement."

"(Signed), President P. DOUBOUVÍZKY."

ST. PETERSBOURG, Mai 17th, 1860."

* P. S.—Just now, Dr. Campbell has—21 Mai—been elected as a corresponding member of the Imperial Academy of Medicine, and we are waiting for the approbation of the Minister."*

8th. His last publication on the subject of excito-secretory action, as applied to pathology, will be found in connection with one of his Surgical Essays, to be mentioned hereafter.

It is the Part II of his paper on "Urinary Calculus," to be found in the last volume (XXX, 1879), of the *Transactions of the American Medical Association*, p. 629, "Etiology and Pathology of Urinary Calculus." This part comprehends the "neuro-dynamic origin of calculus"—"Morbid Excito-secretory Action, the True Origin of the Calculous Diathesis." "The Relations of the First and Second Periods of Dentition to the Origination of Calculus."

Having proved by statistical research that by far the largest proportion of the subjects of vesical calculus are infants having uric acid nuclei, he closes with a series of seven

*Neither of the letters from the Academy, nor that of Sir Benjamin Brodie, have been elsewhere published as yet. They are found in the MS. introduction for a new edition of Dr. Campbell's Essays on the Nervous System.

propositions, indicating the neuro-dynamic origin of calculus, only one of which need here be quoted :

"*Fourthly.* The albuminous food of infancy furnishing abundant material out of which uric acid may be produced, *the one overshadowing influence* instrumental in its production, and in the formation of idiogenic nuclei, is the functional disturbance of the liver—*hepatic paresis*—which, during this period, is produced by reflected dental irritation, as heretofore demonstrated. As glycogenesis is artificially produced in the experimental demonstration of Claude Bernard by irritating the floor of the fourth ventricle, so lithogenesis in the nursing infant is morbidly produced by reflected dental irritation of the fifth pair implanted in the same nerve-centre. Imperfect disintegration and imperfect oxidation of albuminous material in the liver is the result of the hepatic paresis thus superinduced. Hence, idiogenic nuclei, and consequently calculi, are abundant at this period." *Op cit*, p. 652.

In addition to the above eight papers, the writer finds in one of the earlier volumes of the *American Transactions*, May, 1853, and also in the collected Essays on the Nervous System,* an elaborate essay of over sixty pages, entitled "An Inquiry into the Nature of Typhoidal Fevers, Illustrating the Ganglionic Pathology of all Continued Fevers," which title sufficiently signifies the subject-matter of the discussion.

By the foregoing review of Dr. Campbell's contributions, it will be seen that, in a period of about thirty years, whatever else may have been his pursuits, or in whatever other field of labor he may have been engaged, the ganglionic or vaso-motor system, and especially its reflex relations, as applied to pathology, has never ceased to engage his most earnest and active attention. He has, indeed, made good the prophetic words of the illustrious Marshall Hall, "There is in the excito-secretory function, as applied to pathology, an ample field of inquiry for his life's career."

CONTRIBUTIONS TO SURGERY AND MEDICINE—Dr. Campbell, it is said, has been heard to express himself as practising surgery "as a necessity of benevolence and bread," while his study of physiology has been for "love and happiness." Such an announcement, if seriously made,

* *The Secretary and Excito-Secretory System of Nerves in their Relation to Physiology and Pathology.* Philadelphia. J. B. Lippincott & Co., 1857.

would not certainly give any very good augury for either activity or success in the practical departments. And yet, for over thirty-five years he has been known to labor day and night; to traverse weary distances, and to forego comfort and even security of life, in peace and in war, to labor in a field which was *not* his choice. From his earliest youth, he has occupied lectureships and chairs either directly or secondarily connected with the teaching of surgery. Not only his time and labor, but his moderate resources, with those of his brother and colleague, were early taxed to found an institution, which, as we have seen, was principally devoted to surgical practice. What a man may think of his own impulses, or whatever others may *say* of him, is ever evanescent, and passes away with the decadence of a single generation. As the writer has intimated in the outset of the present sketch, a man's life is to be looked for hereafter in the written records of his service. There only can it be said of him, "he rests from his labors, and his works do follow him."

Among a considerable number of contributions on surgery and allied subjects, the three following papers may be mentioned as perhaps best known: "Traumatic Hæmorrhage and the Arteries." This paper constitutes chapter III of *The Manual of Military Surgery*, prepared by the order of the Surgeon-General, for the use of the Confederate army. It presents a most careful and particular consideration of every arterial lesion liable to result from gunshot wounds. It gives in terse but comprehensive language, accurate and available directions by which the military surgeon, in the field or hospital, may be guided in cutting down upon, and ligating every accessible artery. The first announcement of the principle of ligating the main arterial trunk of a limb for the radical cure of inflammation, and for the prevention of gangrene, is made in this chapter. Here, also, brief notes are recorded of most of the ligations performed by him for this object. The chapter on Hæmorrhage occupies over 120 pages of the *Manual*. "The Hunterian Ligation of Arteries in Destructive Inflammation," a paper published since the war,*

*See *Southern Journal of the Medical Sciences*, N. O., August, 1866; also, article "Inflammation," *Cooper's Surgical Dictionary*, London, 1872, p. 18.

contains a fuller description of the fifteen cases of ligation, with considerations as to the applications and rationale of this important measure of treatment.

The other surgical paper to be here mentioned is of too recent date for discussion, as it is found in Volume XXX of *The Transactions of the American Medical Association* just published—"Urinary Calculus." This is a report of some forty-seven cases, and is a study of the disease in its surgical, therapeutic and hygienic relations, ending in Part II, with an investigation of the etiology and pathology of calculus, pp. 102.

In the *Transactions of the American Gynæcological Society* and elsewhere, are to be found various contributions by Dr. Campbell to this important branch of medicine: "Pneumatic Self-Replacement of the Gravid and Non-Gravid Uterus," pp. 42; "Calculi found in the Bladder after the Cure of Vesico-Vaginal Fistula," pp. 10; "Rectal Alimentation in the Nausea and Inanition of Pregnancy," pp. 31. This last paper might be termed more a contribution to physiology than to gynæcic medicine. By observation and by actual experiment, the conclusion is arrived at, that the *physiology* of rectal nutrition is to be found in the reversal of normal peristaltic action. "This retrostaltic action, when continuous, as in rectal alimentation, accomplishes the ascent of the nutriment from the rectum into the small intestine. As here considered, I believe 'intestinal inhaustion' to be a newly-recognized function of the alimentary canal. It is to the intestines what deglutition is to the stomach. Through its instrumentality, rectal and buccal ingestion are, as nearly as possible, equalized in both their rationale and their results." "Position, Pneumatic Pressure and Mechanical Appliance in Uterine Displacements," read at the Medical Association of Georgia, Savannah, April, 1875, pp. 18; "Blood-letting in Puerperal Eclampsia—Pathological Therapeutics—The Old and the New," *American Journal of Obstetrics*, vol. IX, August, 1876, pp. 48, are the titles of other papers of merit contributed to medical science by Dr. Campbell.

The history of the remarkable and widespread epidemic, dengue fever, as it prevailed in Augusta, Ga., was prepared

by Dr. Campbell (*Southern Medical and Surgical Journal*, 1851). In regard to the inland prevalence of yellow fever, he was at an early date firmly convinced of the baleful instrumentality of railroads in transporting the disease. At the seventh annual meeting of the Medical Society of the State of Georgia, held at Macon, April 9th, 1856, he was chairman of the committee to investigate the question, as to "the means by which the extension of yellow fever into the interior may be prevented." In the Second Annual Report of the Board of Health of the State of Georgia, will be found a report on "The Railroad Transportation of Disease-Germs." At the last annual meeting of the Medical Association, of Georgia, held at Rome, April, 1879, "The Yellow Fever Germ, on Coast and Inland, with a consideration of Ship and Railroad Quarantine," was the title of a paper read by Dr. Campbell. "The Yellow Fever Quarantine of the Future," a paper advocating strictest quarantine of railroad trains, trunks, clothing, and all porous goods, but claiming "free passport and refuge for *persons*—even subjects of yellow fever—on the acknowledged ground, that the disease is not contagious," was read by him at the meeting of the American Public Health Association, held in Nashville, November, 1879.

In noting the literary contributions of Dr. Campbell, the writer has given more care to his earlier records than to those of recent date, and consequently more familiar to our readers. As the natural result and well-earned reward of a life of assiduous labor and patient toil, for the advancement of science, he has met with many gratifying recognitions at the hands of his brethren. Some of these have been but kind endorsements of his faithfulness, while some of the others have been coupled with the imposition of higher responsibility, and sometimes, with the incentive to, if not the exaction of, an increased amount of labor.

He is a member of the American Medical Association, of which he was vice-president in 1858; and a member of the Medical Association of Georgia, of which he was vice-president in 1852, and president in 1871. He was elected a correspondent of the Academy of Natural Sciences of Philadel-

phia in 1858; a corresponding member of the Imperial Academy of Medicine of St. Petersburg, Russia, in May, 1860; a fellow and one of the founders of the American Gynæcological Society in 1876; a member of the Georgia State Board of Health, elected in 1875; a member of the Abingdon Academy of Medicine, elected in 1879; of the Augusta Medical Society, president in 1877; of the American Public Health Association, on Advisory Council in 1879, and foreign corresponding member of the Medical Society of Sweden, elected at Stockholm, December 13, 1878.

Dr. Campbell married, at the age of 20, two years after his graduation, Sarah Bosworth, the eldest daughter of Amory Sibley, Esq., of Augusta, Ga. By her exalted Christian worth, rare intellectual endowments, and refined taste and culture, she is now, and has been through life, his gentle guide, wise counsellor and best friend. Their only daughter, Mrs. Carrie Doughty, and her two children, complete the household, giving additional companionship and solace to the "hours at home."

ART. II.—Carbonate of Ammonia in Diseases of the Respiratory System, and as a Special Prophylactic and Probable Remedy in Heart-Clot. By J. P. THOMAS, M. D., Pembroke, Ky.

I published, in the April number, 1876, of *The Richmond and Louisville Medical Journal*, a paper on "The Pathology, Etiology and Treatment of Pneumonia," in which this drug was placed at the head of the list of therapeutic agents, in the management of the disorder, in all its forms. This paper was afterwards, at the request of some medical friends, republished in pamphlet form, and the edition exhausted. Several hundred letters were received, first and last, from as many physicians in regard to it—some endorsing the paper as a whole, some only its therapeutics, others condemning the treatment, and still others making inquiry concerning the treatment as to its continued success, after a more extensive trial. For the purpose of answering the latter class of correspondents, and of impressing my views of the *great* value of this drug in pneumonia, supported, as they now are, by

much greater experience in its use, on the profession in general, the present paper is prepared.

In this paper I shall reiterate and reaffirm my statements made in the former one; and I shall also endeavor to present some experience with the drug in the treatment of other pulmonary diseases, together with its supposed effect in two cases of heart-clot, and its probable value as a prophylactic, and even remedy for this trouble, as well as a solvent of emboli or fibrinous deposits in general.

As many of the readers of this journal have not read the paper referred to, for the purpose of calling their attention to views therein expressed regarding the physiological action of ammonia carbonate upon the organism—some of which, at the time, were only hypothetical, but which since have been demonstrated as facts, tested by considerable observation and experience in the use of this agent in the treatment of, not only pneumonia, but bronchitis, whooping cough, croup and diphtheria—I shall, without further apology, quote from its pages when necessary.

That paper was written with an experience of only 75 cases, with one death, up to 1875. The present report is made with an additional list of 132 cases observed during the last four years with only two deaths. Of the 132 cases, several were seen in consultation, and had been treated from three to ten days with other remedies without improvement, until the ammonia was substituted or added; and I cannot now recall a single case that did not improve almost immediately on its addition to the treatment.

Of the two deaths, one was a negro man aged 55, and in whose case the directions were not carried out; the other case had been virtually abandoned by his physician as hopeless before the ammonia treatment was tried. But two other cases, that had been given up by their physicians as beyond the reach of medicine, under the stimulating and decarbonizing influence of large doses of carbonate of ammonia and good diet, rapidly recovered.

As enunciated by the writer in 1871, and also in the paper referred to as having been published in the *Monthly*, pneumonia is not one of the phlegmasia *per se*, but is an infectious

disease, and was so pronounced by Juergensen in 1875; and though the reverse of his previously published views, yet, in a recent publication, *our own* great clinician, Austin Flint, Sr.—the greatest living authority in such matters—acknowledges this *important* fact.

Notwithstanding such high authority as Dr. Flint, pneumonia is still too often treated as a purely local disease—a simple inflammation of the lungs—when it is a disease of morbid origin as much so as any of the infectious diseases. “We cannot account for the extreme pulse-rate in many cases, on a consideration of the anatomical changes found in the lungs alone; consequently, for this and other reasons, there must be admitted a *materies morbi* or infectious agent, to produce the amount of constitutional disturbance witnessed in the majority of cases.”

Certainly the idea of the local origin and the maintenance of pneumonia by the local lesion is a “stumbling block” to its rational treatment, and probably the immediate cause of many deaths. The immediate cause, for the reason that many cases have terminated fatally—not from disease, but from the depletory and depressing treatment pursued. Such must be the result of treatment addressed only to the local manifestations of the disease, unless the resisting power of the patient is equal to the disease and treatment combined. This remark is applicable to another disease of the respiratory system, which has been considered and treated as primarily local in its origin. I refer to bronchitis; and especially in its capillary form does this idea of its nature prove often pernicious in treatment. Constant observations of the effects of treatment in these diseases, together with several *post mortem* examinations as to the extent of the local lesions in both pneumonia and bronchitis, confirm me in these views.

The change of therapeutics, from the depleting and depressing class, to the more stimulating and tonic class, goes to prove—not that diseases of this class, at least, have changed their type, as many contend—but that their type or character is better understood. I can vividly remember when typhoid fever was actively treated with tartar emetic

and blood-letting, and when it was the exception for a case to get well. How this practice and the result have changed! Now, it is the exception for one to die, although typhoid fever is the same disease it was thirty or a thousand years ago, if it be a disease of such recognized age. Formerly it was considered as one of the phlegmasia, and not as an infectious or contagious disease.

Though five cases are of but small statistical import in estimating the value of any treatment, yet the success of these cases induces the writer to believe that the free use of carbonate of ammonia, with the addition of the tincture of the chloride of iron, in *frequent* and *full* doses, aided by ample nourishment, would prove, on trial, of great value in that terrible scourge, diphtheria. And if the reported success of "the Brooklyn treatment" by alcohol is true, there can be no doubt but that ammonia is superior to alcohol as a stimulant, and equal to it as a food; for as stated before, "notwithstanding the high authority of the lamented Anstie and many others, alcohol possesses none of the properties of food, and carbonate of ammonia is an oxygenator of the blood in disease, and oxygen is food to the lungs. While alcohol is only an arterial and cerebral stimulant in moderate doses, it is a cerebral sedative in larger doses, and always to some extent a carbonizer of the blood. Or, in other words, the ammonia possesses equally the stimulating power to the circulation, with none of the depressing effects upon the brain.

"The action of carbonate of ammonia upon the organism seems to be versatile, and its properties many." In diseases of the respiratory organs, it always promotes expectoration of the mucous exudations in the bronchi—thus far aiding arterialization of the blood. It rarely fails to produce free diaphoresis—thus, to some extent, unloading the capillary circulation, especially of the lungs, and of course promoting elimination of the *materies morbi*; it also acts by depleting and yet assisting the heart in a conservative manner. It invariably lowers the pulse as soon as its action upon the skin is established, and thus it also combats the fever. Unlike alcohol, it prevents, instead of aids, the accumulation of car-

bonic acid, by promoting, in an eminent degree, oxygenation. It does what would be expected—renders the blood alkaline, even when, on test, it was decidedly acid before the administration of the ammonia. It probably prevents the formation of emboli by its diffusive stimulation of the circulation, and its alkalinity; when persistently administered in full doses, it undoubtedly does this, and consequently it must prevent the deposit of fibrin by its solvent powers, and hence limits hepatization in lung tissue.

That it checks exudation is proven by the rapidity with which it changes the color of the sputa in pneumonia. Ergot is said to do the same thing by its hæmostatic properties of contracting the arterioles, and it is now often prescribed in pneumonia; but I have never derived any benefit from ergot in any form of hæmorrhage, except it be uterine.

As stated in the paper formerly published on Pneumonia, carbonate of ammonia certainly, in some way, promotes oxygenation. From this fact, I have repeatedly given it in almost every form of pulmonary trouble where there was alarming cyanosis; and when the dyspnœa was so urgent that the patients were gasping for the want of oxygen, invariably after a few full doses, the carbonized discoloration of the skin would fade, and finally disappear; the breathing would become much reduced in frequency, and less labored. It has, in my hands, in a very short time, often reduced the respirations from 40 or 50 to the minute in the adult, down to 20 or 30. And in the suffocative diseases of children—such attacks as frequently occur in the course of capillary bronchitis and the occasional suffocative stage in some cases of simple croup, as well as in many cases of pertussis—all of which are sometimes alarming—there is no remedy equal to ammonia carbonate.

I have recently seen in consultation two cases of croup, in which this peculiar suffocative stage was so alarming, that they were both pronounced membranous, and nothing was thought of but tracheotomy. In both of these cases, ammonia carbonate, in five grain doses, largely diluted with water and syrup, and administered every 15 minutes, gave prompt relief to the urgent symptoms, and both children recovered.

On *January* 16th, 1879, I was called to see Willie Radford, aged five years. I found the little patient suffering with a sudden and violent attack of croup, supervening upon an acute tonsillitis. After exhausting the usual treatment by nauseants, etc., the symptoms continued to increase in severity to such a degree as to convince me that I had to deal with a case of membranous croup, which would soon terminate in death if not quickly relieved. Before resorting to tracheotomy, I concluded to try ammonia carbonate, and cold cloths applied to the throat. The first dose of ammonia was given at 12 o'clock on the night of the 18th, and repeated every fifteen minutes until 5 A. M. the 19th, when there was decided improvement in all the urgent symptoms, but the remedy was continued in the same doses every hour during the day. After this, four grains were given every three hours, in a teaspoonful of syrup of senega, for twenty-four hours longer, when the patient was discharged cured.

In many cases of simple croup, although accompanied or complicated by such distressing suffocative paroxysms and symptoms as to have the appearances of pronounced membranous croup, and when nothing but tracheotomy seems to be indicated—whether performed or not—I have no doubt but that this drug, in full doses, and frequently repeated, would often take the place of the scalpel and tracheal tube; or rather, after trial, induce practitioners to banish these formidable and, when resorted to under such circumstances, useless instruments from the mind; because tracheotomy is nearly always resorted to at too late a stage.

In whooping cough, I have seen carbonate of ammonia produce the happiest results, by preventing the suffocative paroxysms. This agent, combined with chloral hydrate, in proper doses, with an occasional full dose of quinia, is the most satisfactory treatment of this self-limited disease of which I have any knowledge.

In the suffocating, cyanotic paroxysms occurring in children during an attack of acute capillary bronchitis, catarrh of the fine bronchi, or the catarrhal fever of some writers, I have never found any agent or agents comparable in efficacy, and equal in promptness, to ammonia carbonate. There is, in these cases, congestion of the whole pulmonary tissue, as the result of bronchitis, which often sets up a train of venous

engorgement, or stasis, beginning in the lungs, but frequently extending to the large veins, and even to the abdominal viscera. In all congestions of the lungs, this is the remedy *par excellence*. I have used it alone in quite a number of cases of pulmonary engorgements, resulting from acute capillary bronchitis—both in children and adults—and nearly always with complete relief to the suffocative symptoms within thirty-six, and sometimes within a very few hours.

During the year 1879, I treated successfully, by this same agent, three cases bearing strong resemblance to the case so graphically described by Dr. B. H. Riggs, of Selma, Ala., in his paper on “Carbonate of Ammonia in Suffocative Diseases,” read before the State Medical Society of Alabama, and published in its *Transactions*. Dr. Riggs’ description is such a perfect photograph of the condition—I may say such an accurate pen-picture of the situation—that I cannot describe the character of cases, complicating this disease, in which carbonate of ammonia is peculiarly indicated and *pre-eminently* useful, better than by giving it in his own words. Speaking of an urgent call to visit a child, the Doctor says:

“I repaired to the house to find the child suffocating—drowning from pulmonary engorgement; his head was thrown back, and his spinal column was bent backward like a bow, to take the pressure off the chest; the face was pallid, with a purplish tinge on the cheeks; lips white; nostrils distended; eyes of pearly whiteness; finger-nails purple; respiration rapid and panting (I should say gasping); and pulse quick, frequent and feeble; temperature in the axilla 105°.”
* * * “Here was a case of pulmonary congestion resulting from acute bronchial catarrh of the smaller bronchial tubes.”

The treatment he pursued was the administration of two grains of carbonate of ammonia every two hours, with hot mustard pediluvia and repeated sinapisms to the chest. He adds, “The treatment was attended with success.”

I venture the assertion, for such it will be termed by many, that under any other therapeutics the child would have died. Two of my recent cases were in every respect like this one described by Dr. Riggs; but the third was purple all over,

and the respiration so rapid that it could not be counted. In this case, the remedy was given both by mouth and rectum in elm mucilage, and his body up to his neck was kept submerged in a hot mustard bath.

From two to three grains of carbonate of ammonia may be given to an infant from six to twelve months old, in elm mucilage by the mouth, and from five to six in the same menstruum per rectum.

I think, however, Dr. Riggs does not fully or exactly express the cause of the bowing backward of the spine in these cases, when he says "it is to take the pressure off the chest." There is really no pressure on the chest. It is true the lungs are engorged, and of course oppressed, but the little patient instinctively bends the body backward to expand the lungs by raising the ribs, or in other words, to admit more air. The respiration is not only rapid, but often gasping; *i. e.*, the patient is trying to expel the excess of carbon and suck in (so to speak) more oxygen. The ammonia acts in these cases by decarbonizing the blood and stimulating the heart; and Dr. Riggs' mode of giving it to a six months old child in two grains every two hours, sufficiently diluted with water, and these two grains to be given in broken doses at intervals of 30 minutes, is an admirable plan.

I was called to see a child of Mr. J. W. M's, eleven months old, of which the father wrote: "My child has diphtheria; please come quickly." On arrival, I found a plump, healthy looking female child held by the mother in her lap. The child, though sitting up, was extremely restless, with considerable fever, very little cough, but constantly reaching out its hands to go from one parent to the other, then to the nurse, and when it saw me, bent forward with out-stretched hands for me to take her. I did so, but instantly the imploring manœuvre was made to the mother, to return to her lap, and thence to the father, etc. Respiration was rapid and panting, but not gasping, as there was no cyanosis—just such symptoms I have often witnessed in bad cases of diphtheria; yet, on examination, the tonsils were only a little red, not enlarged, and no exudation or patch of membranous deposit was visible. Auscultation only revealed the finest râles in the sub-clavicular region of both lungs. This case was somewhat obscure; there was very little, if any, throat trouble; the mid-

dle and lower lobes of the lungs were clear and vesicular, and the bronchial trouble did not seem to be sufficient to account for the extreme dyspnœa, restlessness and fever. There was no cyanosis, but, on the contrary, paleness, notwithstanding the fever. "Stoke's Egg Liniment" was applied by flannel soaked in it to the front and back of the chest.

R \bar{y} . Ammonia carb.....gr. xxxij

Aquæ

Syrup. simplicis..... $\overline{\text{aa}}$ 5i

M. S. : One teaspoonful put in a tablespoonful of mucilage of slippery elm every half hour, until quiet; then continue same dose every two hours, until next visit. Also

R \bar{y} . Calomel.....gr. ij

Pulv. ipecac.....gr. j

M. S. : Take at once.

This treatment commenced at 4 o'clock P. M., and on my visit next morning at 10 o'clock, I found the patient well. The mother said that the half-hour doses were only necessary to the sixth dose, before the urgent and distressing symptoms were relieved.

In the paper on Pneumonia, already referred to, the dose of carbonate of ammonia was put down at from ten to twenty grains for an adult, every two hours, in half-tumbler of water, or covered up in slippery elm mucilage. Since that paper was published, I have learned, by much experience, that the larger the dose bearable by the patient's stomach, the better the results in general; and I now give from twenty to fifty grains, or from a half to a teaspoonful in the pneumonia of adults.

The quality of, and the careful attention to, preserving the drug from deterioration, are items of great importance, as to the results of treatment in these cases. Nothing but a fresh crystalline article, free from efflorescence or loss of its water of crystallization, should be used. This must be kept in a well-ground stoppered bottle, with a rubber or bladder covering. It should be powdered only when used, and placed in a wide mouthed vial well corked—one for each patient. Direct the nurse to put out each dose, by dipping a spoon handle into the vial, and re-cork securely each time. I find the ordinary empty morphia bottles answer the purpose well, and hold enough to last a patient from twenty-four to forty-eight hours.

In many cases, I add tincture of digitalis in from ten to thirty-drop doses every three or four hours. Digitalis aids in lessening the frequency of the pulse, and is the best heart tonic we have, and thus assists the ammonia in sustaining that organ. I think, however, that digitalis should be given intermittingly in pneumonia; for its too long continued use, by slowing the action of the heart, might favor the deposit of fibrin, and heart-clot may be formed as a result.

These two remedies, with an occasional cathartic of rhubarb and calomel, when required, and a blister, when much pain is complained of, with as much proper nourishment—such as milk, half-cooked eggs, beef tea, etc.—as the patient can appropriate, is all that is required in the successful management of the majority of uncomplicated cases of pneumonia in either form.

Of the truth of the theory that heart-clot is produced oftener by a stasis of the circulation than from any other cause, I am convinced. This being admitted, it follows that in congestions of the lungs, where the blood is necessarily thrown back upon the heart through the pulmonary artery, the heart should be conservatively stimulated during their course. That heart clot is of more frequent occurrence in acute diseases of the respiratory organs, and especially in pneumonia, than is generally supposed, I am also satisfied. And that it is the *sole* cause of death in many cases of pneumonia, admits of but little doubt. Hence the necessity of sustaining the heart in this disease by proper stimulation.

When the paper on Pneumonia was written, my suggestion of the solvent properties of ammonia on fibrin were, with me, entirely hypothetical and independent of any knowledge of Dr. B. W. Richardson's investigation in this direction, or his experiment with this agent, which knowledge I first gained from reading a very interesting report of three cases of heart-clot, by Dr. M. L. James, of Richmond, Va., in the *Transactions of the Medical Society of Virginia*, 1877.

I have been fully convinced since 1870 that carbonate of ammonia, more than any other alkaline salt, possesses, in some way, valuable properties as a preventive of fibrinous deposits; and consequently it was, to a considerable degree,

a prophylactic of thrombosis and embolism. But whether it possesses solvent powers sufficient to dissolve a clot when formed in the heart, I am not prepared to say; for one reason, if no other, viz., the impossibility of making a positively correct diagnosis of heart-clot. It is true, Dr. James, in his very lucidly descriptive paper, before referred to, made a diagnosis in two of his cases which were confirmed by autopsy. But, as he admits, he did not suspect or recognize heart-clot in his first case; and that the diagnosis of the two last cases was from recognizing the peculiar cooing or chirping murmur, so constantly studied and listened to in the case of Mrs. D.; and also, as the Doctor intimates, from the coincidence of their rapid occurrence in his practice. Notwithstanding, we know, as Dr. James admits, that this peculiar sound is not present in every case of heart-clot; and that this identical sound may be produced by other pathological conditions of the organ.

There is, at present, a lady living in Franklin, Ky., Mrs. T., blonde, aged 20, health always good, whose heart gives out so distinctly and audibly the identical sound described by Dr. James, that it can be heard at a distance of several feet. It was only a few weeks after reading the Doctor's paper, when I met the lady for the first time. While sitting three or four feet from her in social conversation with herself and husband, my ear detected the trouble in her heart; and even at that distance it was so peculiar, and recalled to mind so vividly the character of murmur described by Dr. James, that I requested permission to auscultate the heart. After a careful examination, I became convinced the murmurs were precisely those of the Doctor's first case (Mrs. D.), but, in addition, there was a trembling or vibratory motion on placing the hand over the heart.

But the history given me by the lady and her husband (both highly cultivated and talented) was, briefly, that her case was congenital—having existed from birth, and on account of the cardiac trouble, was discovered at once by the family physician. She was always carefully watched, and after she was able to walk, was prohibited from any active exercise up to her twelfth year, believing she would die suddenly at any moment.

The lady was *enciente* at the time I made the examination of her heart—about the sixth month of her first pregnancy;

and notwithstanding her perfect health and perfect development in every other particular, and her indifference to this physical defect, I confess I anticipated trouble of a serious, if not fatal, character at her approaching confinement. Her physician was requested to report the effect of labor upon the heart, if any unusual results were noted. He wrote me: "Mrs. T. had a normal and comparatively easy labor, without the least complication or difficulty, as was expected, on account of the peculiar heart trouble. Her convalescence was rapid and complete."

The heart murmurs in Mrs. T's case are, it may be said, neither systolic or diastolic, but both, *i. e.*, presystolic; they are prolonged from the systole into the diastole. It is probably a case of stenosis of the mouth of the pulmonary artery, complicating the semilunar valves with, for the present, complete compensation.

But as the object of this paper is not the discussion of pathological or anatomical lesions, but to bring before the profession more prominently the great value of ammonia carbonate in the treatment of the diseases under consideration, and believing, as I do, it will justify being insisted upon, I will briefly give the history of three cases that were supposed to be thrombosis.

CASE I.—Hon. I. H. G., aged 30, of previous good health, had been for three months under the treatment of his family physician for intermittent and remittent fevers, which had proven so rebellious to treatment that they were only temporarily subdued for a week or two at a time, thereby establishing an anæmic condition, great emaciation and extreme debility. He then, for the first time, complained of cardiac palpitations, with pains at times over the præcordia, and referable to the whole chest, as in congestion of the lungs, accompanied with some cough. A week after these symptoms were first observed, he was attacked suddenly with syncope and excessive palpitation of the heart. His physician and a *confre*—both skilled and accomplished—almost despaired, at the time, of his recovery from the "fainting spell," but he did recover as suddenly as he was attacked, and with entire relief from the dyspnoea, palpitation and distress about the heart and chest, of which he had complained for several days previous to this attack. But there was a sudden transference of pain to his right leg, followed by extreme swelling of the whole limb, which soon became mottled with purple

splotches. The dimensions of the limb increased four inches in circumference over its fellow, and a tumor, the size of a hickory nut, developed in the femoral region. There was considerable œdema of the foot and leg, reaching to the popliteal space; the limb was cold; and arterial pulsation was very feeble and indistinct below the tumor. The heart became rather tumultuous in its action; the radial pulse ranged from 110 to 130, and was small.

A distinguished physician from a neighboring city saw the case in consultation with his regular attendants soon after the formation of the tumor, and with the above history of the case, as given by his physician, diagnosed venous thrombosis of the femoral vein.

One week after the above diagnosis was given, I saw the case in consultation with the family physician and his regular *confre*; and without a knowledge of this diagnosis, I gave it as my opinion that it was an embolism detached from the aortic valves and lodged in the femoral artery. The tumor was about six inches below Poupert's ligament. The same symptoms would have occurred in either case; but it was certainly a fibrinous clot impeding the circulation in the limb, and was evidently located in the femoral vessels. The previous disturbance of the heart and circulation, and its sudden relief from such distress, coincident with the disturbance of the circulation in the leg, together with, as will be seen, the manner of its disappearance—all point to its origin on the aortic valves, and consequent passage down the aorta and external iliae into the femoral artery; yet it may have been a venous thrombus.

The treatment consisted in painting the tumor with tincture of iodine, rubefacients to the whole limb, which was kept enveloped in cotton batting and flannel, and the internal administration of quinine and digitalis.

I should have stated, the intermittent character of fever having persisted, the quinine was given as an antiperiodic and antiseptic; the digitalis to lessen the frequency of the pulse and as a heart tonic. The local treatment was continued, with the addition of unguentum hydrargyri to the iodine; the quinine was substituted by thirty-drop doses of tincture of gelsemium sempervirens every three or four hours, according to effect; and *carbonate of ammonia*, in large doses, was added to the treatment.

In twenty-four hours, there was some improvement in the circulation of the limb and increase in its temperature, with marked decrease in the pulse and decrease of half an inch in

the circumference of the limb, and a perceptible decrease in the size of the tumor, which latter was evidently not due to the local application. The improvement continued very gradually until, within three weeks, the circulation was fully and permanently established; the tumor had disappeared, together with the œdema, and the whole limb had resumed its normal circumference.

Either complete solution of the thrombus had been accomplished, or a collateral circulation established. We presume the former, because of the disappearance of the tumor, which could not have taken place by absorption. If the latter was the case, there were none of the symptoms usually described as the result of the breaking up of a venous thrombus into fragments, passing up to the heart—no renewal of cardiac trouble whatever, the pulse continuing all the time to decrease in frequency and fullness, until it regained its normal standard. The recovery of the patient was complete.

Now, if this was a clot, either in the femoral vein or artery (one of which I am certain it was), is it not probable that the ammonia was the principal agent in effecting its solution? The tincture of gelsemium seemed to control the fever completely, as I have often seen it do when quinia had failed. The attendant physician mentioned a blowing sound as having been heard just before the attack of syncope, and during its continuance. There was no abnormal sound distinguishable when I saw the patient, except a sort of anæmic murmur.

CASE II.—Mr. P. G. A., aged at death 75, had been a man of extraordinary physical powers, an “iron constitution,” but which he had constantly abused by exposure to all kinds of weather and constant overwork as a farmer. He had met with quite a number of accidents during a long life, a few of which occurred to him during the last ten years of his life: A wagon loaded with barrels of salt turned over, throwing him out, and one of the barrels rolling over the thorax, fracturing several ribs and crushing them upon the thoracic organs, from which he recovered. About a year after this accident, he fell from the top of a wagon loaded very high with straw, upon frozen ground, fracturing the neck of the femur, from which he finally recovered sufficiently to walk with only the aid of a cane. Afterward, he was kicked by a mule on the lower spine, which, for a time, produced partial paralysis, but from which he fully recovered. The last acci-

dent I shall mention was great mutilation of one hand and arm by repeated bites of a vicious dog. He had three attacks of pneumonia, two of acute rheumatism, four of dysentery—all these during the last decade of his life, for all of which I had attended him. The last attack of rheumatism involved his heart, producing an acute attack of endocarditis, but of very short duration, yet it resulted in valvular disease.

That he has been the subject of chronic valvular disease for the past three years, I am satisfied. In May last (1879) he had frequent spells of cardiac distress, one every day for three or four days in succession, accompanied with gasping for breath, syncope, some lividity of the countenance, etc. Stimulation with ammonia and whiskey would relieve him each time. Notwithstanding, he was the subject of heart disease, sufficient to cause death at any time from the least exertion, yet as these "spells" would occur when he was perfectly quiet, I suspected the formation of a clot on the semilunar valves.

Ammonia carbonate was prescribed as a constant treatment, and with decided benefit for a while; but on account of its nauseating effect upon an already dyspeptic stomach, it was impossible for him to take it with any regularity, as it, of course, increased his indigestion and diarrhœa, from which he was an almost constant sufferer. He had, at all times, the coarse, bellows murmur, and often it was accompanied by *bruits* and, in fact, a variety of heart sounds.

On December 13th, he was suddenly attacked with a feeling of impending suffocation, while grinding an axe in his yard, but walked into the house and got into bed without assistance, remarking to his wife, "My heart feels like it is choked, and I am going to die. My feet are cold; put a hot iron to them." Before the iron could be heated, he died as if by strangulation, being quite black in the face. No *post mortem* was allowed.

Here, I think, was a heart-clot lodged, as it were, on the semilunar valves, produced from the walls of the ventricle, as a fibrinous deposit resulting as a sequence of the endocarditis, and was the immediate cause of death. For, aside from the heart trouble, he was, for one of his age, active, strong, and in good health. I am inclined to think, on account of its apparent beneficial effect, that could he have taken the ammonia in full doses regularly, his life would have been prolonged.

CASE III.—*March*, 1878, I was called, in consultation, to see H. C., male, aged 25. Previous to an attack of pneumo-

nia, from which he was just recovering, he had always enjoyed good health, with one exception—an attack of acute rheumatism of the joints in 1874. To this latter disease, he said, he had a hereditary tendency—his father having been the subject of numerous attacks of rheumatism of the joints, and finally died of rheumatism of the brain, or such was the diagnosis of his physician.

I was called to see this young man *March*, 1878, on account of “sinking spells,” as he called the attacks, “with great fluttering at the heart,” whenever he attempted to assume a sitting posture. I found him extremely weak and prostrated, due, as his physician said, to convalescing from a severe attack of pneumonia. Tongue clean, but no appetite. He had been treated by the old antiphlogistic regime—tartarized antimony, ipecac, and even one copious blood-letting. As long as the horizontal position was maintained, there was only extreme weakness and frequency of pulse, with palpitation, at intervals, of the heart. But on attempting to sit up in bed, he was instantly seized, as it were, with a constriction through the præcordial region, with gasping and extreme dyspnœa, and had to be immediately placed back on his pillows, when the breathing would again become easy; but the heart and pulse continued excited and somewhat tumultuous for sometime after. On auscultation of the chest, the whole base of right lung was found hepatized; and while on his back the heart murmurs were of a blowing, splashing character, conveying to the mind the idea of a liquid being spirted against a wall with a blow, as water from the mouth against a wall. But on turning the patient on either side, the sounds were entirely changed; there was then only the bellows murmur, accompanied with a sort of thrill, or vibratory sensation imparted to the tympanum. I confess, at the time, I did not suspect cardiac thrombus, but my diagnosis was valvular disease, and my prognosis, death, which was concurred in by the attending physician.

Notwithstanding the prognosis, from my experience of the good effect produced by ammonia carbonate in connection with digitalis in cases of pneumonia resulting in cardiac lesions, and especially with the remaining hepeticization or revolution of lung tissue incomplete, he was placed on the following:

R. Ammonia carb.....ʒj
 Mucil. ulmi cort.....ʒij
 Tinct. digitalis.....gtt. x

M. Fit haustus. S: To be taken every three hours.

As a tonic and appetizer, *vin. ferri aromat. citratis**, in table-spoonful doses, should be given *ter in die*, with all the beef tea, egg punch, oyster soup, uncooked eggs, with milk, he could be induced to take. There was decided improvement in the general condition of the patient in forty-eight hours. The dyspnœa was not so alarming on his assuming the sitting posture; yet, for twenty days, it was impossible for him to remain in this position more than a few minutes at a time without suffocating symptoms, and extreme disturbance of the heart and nutrition. After this time, these attacks ceased, and he gradually regained his strength; the pulse became regular, the heart murmurs more indistinct; but it was several months before they became entirely normal. His appetite increased so rapidly, soon after the administration of the aromatic wine of iron, that it had to be controlled. The cure was really complete within six weeks from the beginning of the above treatment. There has been no return of the heart trouble, and he has been in perfect health since the above illness, except a short attack of malarial fever.

At that time, I had not studied the subject; but since I have investigated the subject of thrombosis and embolism, as extensively as the literature within my reach afforded, and especially since reading the paper of Dr. James, before referred to, I am convinced that I had, in this last case, a subject of veritable heart-clot, and to which condition was due all the cardiac and respiratory troubles so briefly described. My opinion, however, is, that the clot was still soft, and not fully organized when the treatment was instituted. And further, that organization was not only prevented by the ammonia, but the solution of the clot effected by the continual use of this drug for twenty days. For the first six days, the above

*As this is an efficient and palatable preparation of iron, and as it has never been published, being peculiar to the writer, and having been prepared and prescribed by him for a number of years, with good, or, at least, satisfactory results in all cases where iron is indicated, the formula and directions for preparing it are here given:

Vinum ferri citratis-aromatici, or *Citrated aromatic wine of iron*,

R. Lemons [peeled and seeded].....	viii
Iron filings [selected by magnet].....	℥iv
Madeira wine.....	℥xij
Mace and cinnamon, each.....	℥ij

Beat up the lemons with the iron filings in a mortar; place in an open mouth bottle, stop loosely, and let stand ten days; then add the wine, together with the mace and cinnamon, with some of the lemon peel cut up. Digest fourteen days and filter. If the lemons are large and juicy, four lemons will answer.

draught was repeated every three hours; afterwards every five or six hours for fourteen days longer.

But, as before stated, a *positive* diagnosis of heart-clot is extremely difficult; consequently, the symptoms in this case may have been due to extreme cardiac anæmia, as the result, not only of the pneumonia, but more especially the debilitating treatment to which the patient had been subjected. But as both these causes are decidedly the most potent in the production of thrombus, I am forced to the conclusion that this was a case of heart-clot complicating or occurring as a sequellæ of pneumonia, and its treatment. That the ammonia carbonate was the principle, if not the sole, agent in accomplishing the cure, I see no possible reason to doubt.

As a summary of the subject of the therapeutic value of carbonate of ammonia, I would formulate the following propositions:

1st. In every form of pneumonia, it is the best single remedy, and is indicated in all cases, in connection with any other additional treatment that may suggest itself to the practitioner.

2d. In the great majority of cases of croupous pneumonia, in connection with counter-irritation, when indicated by the amount of pain, aided by proper alimentation, it will abort the disease, and cut short its course several days, when the directions given in this paper are carefully followed.

3d. In all the suffocative cases of the respiratory organs in children or adults, whether the result of acute capillary bronchitis *per se*, or coincident upon the exanthemata, it is the remedy *par excellence*.

4th. Judging only from a very limited trial of it (only five cases) in diphtheria, it is far superior to alcohol, and does seem to possess the power of dissolving the membranous exudation. And with or without local treatment, in connection with the tincture of the chloride of iron, and small doses of quinia, it has, in my hands, produced better results than any treatment I have yet tested in trying to combat successfully this terrible scourge. It has been my misfortune to come in contact with many cases first and last, and to have put on trial nearly all the lauded, so-called, antiseptics, with—I am compelled to confess—a large mortality.

5th. It is, without a doubt, of great value in croup, and, in many cases, will be found, on trial, to rival, if not excel any one of the usual remedies—to be equal to, and much less dangerous than, tartarized antimony. And in the suffocative stages of simple croup, it is a *sine qua non*; and, aided by cold compresses to the throat, may prove of great value in the membranous form.

6th. I have more confidence in the aborting powers of carbonate of ammonia, with quinia, in whooping cough, than in any plan of treatment yet suggested—belladonna and chestnut leaves not excepted.

7th. It is certainly a prophylactic in heart-clot, and has often, no doubt, prevented death from this cause in pneumonia.

8th. It will probably dissolve emboli after they are formed and deposited in the venous or arterial system.

9th. It has more claims, theoretically, as a curative agent in heart-clot than any other known agent, and should be given a trial in every case recognized in time.

ART. III.—**Fracture of the Neck of the Femur Treated with Smith's Anterior Splint.** By HARVEY BLACK, M. D., Superintendent Eastern (Va.) Lunatic Asylum; Ex-President and Honorary Fellow Medical Society of Virginia, etc., Williamsburg, Va.

On the 8th of August last, Mrs. B., aged 59, while walking at night through the grounds at a lawn-party, received a blow on the right thigh, about four inches above the knee, from a swing in its backward sweep, which caused her to fall to the ground—falling on her right side. She soon recovered from the shock, and complained of severe pain at the point where she was struck and at the hip-joint, with inability to move the limb. She was placed on a lounge, and conveyed in a spring wagon to her home, a half mile distant. On examining the limb, I found it shortened about three-fourths of an inch, everted, with undue mobility and severe pain at the hip-joint when it was moved. There was no decided swelling of the hip then or subsequently. I regarded the injury a fracture of the neck of the femur, probably within the capsule, and called Dr. Clopton in consultation, who concurred in the diagnosis.

The lady being large and corpulent, and the weather very warm, and likely to continue so for several weeks, at the sug-

gestion of Dr. Clopton, we decided to apply Smith's anterior splint in preference to any of those recommended by surgical writers, or to placing the limb in position on pillows without splints. She wore the splint eight weeks, then continued in bed two weeks longer, gentle motion of the limb being made daily, after which she got upon crutches, which she used for about a month, then a cane for a few weeks, and is now walking without the aid of either. The shortening is scarcely perceptible; she has a slight limp, due in part to this, and to what she says is a feeling of a little weakness and stiffness about the joint.

While no doubt Smith's anterior splint has been used heretofore in the treatment of this fracture, yet I do not find it recommended or mentioned in any surgical work to which I have access, and I have been induced to report the case and mention the use of the splint, both from the little time and attention required at my hands in its treatment, and the more important consideration that the most satisfactory result was obtained with the least suffering and inconvenience possible to the patient. As soon as the limb was suspended and the dressings completed, she expressed herself relieved of the pain in the hip, and this exemption from pain continued throughout the case; besides, there were none of the excoriations or bed sores, or difficulties in keeping the bed in good condition which are so likely to occur in the treatment of this fracture by other methods. While this may have been an exceptional case, it progressed so much more satisfactorily than the few cases which I have heretofore treated, that I think it worthy of consideration.

Query: Does not Smith's anterior splint combine the advantages of both of the splints generally used, and the treatment by position alone? In the latter, could we expect to adjust pillows or any other appliances by which to place the limb in a more comfortable position than that secured by the double inclined trough in which it rests in the use of Smith's anterior splint? and which, at the same time, affords the necessary extension and counter-extension by which to obtain osseous union, if possible? and still further, the facility of motion given to the patient, whereby his comfort and cleanliness are promoted?

ART. IV.—**Beer as a Remedial Agent.** By JESSE EWELL, JR., Aldie, Loudoun Co., Va. (Read before the Fauquier Medical Society, January 27th, 1880.)

The consumption of lager beer is on the increase in this country, as the report of the National Brewer's Association shows; and it doubtless would be better for the people if beer could entirely supersede the use of whiskey as a beverage. There would be less drunkenness, less disease and less misery than at present. However, it is not of beer as a beverage that I wish to speak, but of beer as a remedial agent.

We all know that lager beer is a stimulant and tonic, and that it is often given to improve the digestion and build up a patient when debilitated from any cause; but its specific action upon the urinary organs, I think, is not generally understood. It soothes irritation and removes congestion; it relieves and cures these parts sooner than any remedy with which I am acquainted. I speak from personal experience, and hope it may not be out of place to cite my own case as an example of the efficacy of this remedy:

In the spring of 1873, I was jerked off my feet by a colt. My right lumbar region struck violently against a stone, hurting me very much at the time, but leaving only a soreness there. The next day, while engaged in active exercise, I was taken with copious hæmorrhage from the kidney. The first blood passed was very dark—what is commonly called “bruised blood;” but as the hæmorrhage continued, it gradually assumed the appearance of arterial blood. Pain was of a dull, aching character, but not severe. Quiet was enjoined, and several kinds of medicine were successively tried and abandoned; nothing did me good but rest in the recumbent position. The hæmorrhage became less and less, and finally stopped, only to return when I took any exercise that was not of the gentlest kind. It was late in the summer before I felt myself well.

In the summer of 1874, I was driving a horse-rake in the hay-field; the lever of the rake was on the right side, and so low down that whenever I wished to discharge the hay from the teeth, I was obliged to bend my body considerably to the right, or, what might express it better, stoop to the right. I raked hay for three days, and at the end of that time was again taken with hæmaturia. As in the first in-

stance, remedies were tried, but tried in vain. For two or three weeks I might be free from hæmorrhage; but ere I could begin to congratulate myself, back it would come, and the only thing I could do for relief was to lie for days as quietly as a naturally restless and impatient disposition would allow.

After two or three months, I found that, although the quantity of blood lost in these attacks was not so great, they were generally preceded by severe pain in the kidney—pain of that peculiar kind which induces extreme nausea, while a cold perspiration starts from every pore—a pain at once devilish and death-like.

Pale, emaciated and debilitated, I went to Baltimore, Oct. 1st, 1874, to attend my first course of medical lectures. There I consulted the first medical authorities, tested the virtues of different prescriptions, and still my complaint continued. I was told not to indulge in alcoholic liquors, and for once in my life, I became a teetotaler. I had now tried all the mineral acids, some of the alkalies, spirits of turpentine, balsam copaiba, ergot, sweet spirits of nitre, Rockbridge alum water, etc., etc. I had been cupped and blistered, rubbed with liniments, and stuck over with plasters, but could not see that I had been benefitted at all. Finally, about the 1st of December, I endured two hours of indescribable suffering, thought by my physicians to be due to the passage of a calculus through the ureter. I had now more irritation of the bladder than usual, and about a week after, with a sudden, sharp, stinging pain, I passed a calculus the size of a cherry-stone. I was cured. Dr. George B. Reynolds, then Demonstrator of Anatomy at the Washington University, and Physician in Charge of the Hospital, kindly undertook to have the calculus examined by an analytical chemist, who pronounced it to be of the mulberry variety, or oxalate of lime.

In the summer of 1878, after an interval of three and a half years, my old enemy re-appeared. I had for several days been more in the saddle than usual; but whether this called it forth or not I cannot say. Hæmorrhage was severe, with but little pain; and when, by absolute rest for days, the hæmorrhage ceased, albumen was present in considerable quantities. I at first feared Bright's disease, but concluded, as the hæmorrhage was capillary, that the liquor sanguinis containing albumen would ooze away for some time after the blood corpuscles ceased to escape. Upon the least exercise, hæmorrhage would return, and for more than six weeks I did not mount my horse.

Toward the latter part of my illness, I wrote to Dr. Lindsay, of Baltimore, formerly Professor of Chemistry, afterwards of Physiology in the Washington University. I felt sure if any one could benefit me, he could; so I gave him my history and symptoms, and suggested the diagnosis "stone in the pelvis of the kidney." I received the following letter in reply:

"159 PARK AVENUE, BALTIMORE, Aug. 16, 1878.

"*My Dear Doctor*,—I am sorry to say I agree with you in the diagnosis of your case, and am also sorry to say that I can make no suggestion which would promise relief. While Professor of Chemistry I was not infrequently consulted in such cases. Among others, was Mr. C. S., formerly U. S. Minister to Turkey. He presented just such symptoms as you do. Some one suggested the use of lager beer; and he always finds the speediest relief from pain, hæmorrhage and albuminuria from its use. At times, he is quite ill, but has improved from year to year simply on lager beer. I would certainly try it in your case. I prescribe it in the albuminuria following scarlet fever, etc., with good results. I know nothing better to suggest.

Very truly your friend,

J. E. LINDSAY."

Before I got the beer, I was somewhat better than I had been, but the two dozen bottles set me fairly on my feet.

During the succeeding fall and winter, I had several slight hæmorrhages, which were speedily relieved by lager beer; but its action in relieving violent pain is truly remarkable. It frequently happened during that period that I would be taken with pain in the kidney so severe that I could scarcely sit on my horse; when I could get no lager beer I have been obliged to take morphia before I could continue my ride; but a glass of beer in five minutes time has never failed to relieve me of pain, and to make me feel as well as I ever did in my life, except perhaps after taking two glasses.

During the spring and summer of 1879, I had no occasion to take lager beer as a remedy; but in November, after a long tramp with my dog and gun, I was again taken sick. I did not get my lager beer for a week, during which time the hæmorrhage was nearly continuons, and quite as severe, when the lager arrived, as it had been at any time. I feared the active diuretic effect; so I began with half a glass full every hour. After six hours, when I had used a bottle and a half, my hæmorrhage ceased, and has not since returned. Of course, I nursed myself carefully for a few days, and continued to pay constant and willing attentions to my lager.

Have I not just cause to sing the praises of lager beer? I regret that I have not been able to use it in my practice. I would have done so frequently, but for the fact that many of my patients are too poor to buy lager beer or to pay their doctor; hence, I am not able to furnish it them. Yet I would foretell for lager beer a glorious future. Possessing, as it does, the peculiar power of soothing and healing the kidneys, is it not worthy of trial upon that fell destroyer, *Bright's disease*? In relieving albuminuria, as it occurs in hæmaturia, it acts, I think, by restoring the tone of the organ; the irritable kidney is soothed to a calm and peaceful action, and the sluggish kidney urged on to do its duty. If this is so, it has a wide range of usefulness, and diabetes and suppression are both amenable. In the cystitis of old persons, this remedy promises rare success; for, besides its special action upon the urinary organs, it will aid digestion, which is generally at fault in these cases. In gonorrhœa, too, it might be of benefit in conjunction with other remedies, although the books all interdict the use of spirituous or fermented liquors.

It is human nature to run away with one idea; still, I would not dub lager beer the "king cure-all" of urinary troubles. I have only stated what I know—what I have felt—of its curative effects, and made some suggestions in the hope that others may feel an interest in this subject, and assist me in giving to lager beer its just deserts as a remedial agent.

Clinical Reports.

Colloid Cancer and Rupture of the Stomach—Abscess of the Liver, and Fatty Heart. By HENRY P. WENZEL, M. D., Member of the Wisconsin State Medical Society, and Secretary of the Rock River Medical Society, etc., Lomira, Wis.

Wm. P., German, æt. 51, had been failing for some time, but was not attended by any physician. Intense fever, with tympanites, developed suddenly, and he died within twenty-four hours, receiving domestic treatment only.

The writer was called upon to hold an autopsy; the lung,

liver, heart, stomach, spleen, pancreas, intestines and kidneys were examined January 29th, at 8 P. M., forty hours after death.

The body was extremely emaciated, rigor mortis moderate.

Heart empty of blood; weight, 14 ounces avoirdupois; the apex was retracted one inch from the pericardium. The pericardium contained four ounces of serous fluid. The cavities were empty save a small *post mortem* clot entangled in the tricuspid valves. The right side of the heart was dilated and the walls fatty; the left was slightly hypertrophied. The mitral valves were insufficient and tuberculous; the tricuspids were covered with reddish vegetations; aortic valves thickened; pulmonary normal. In the right appendix auriculæ were three tumors of a dark brown color externally, and white internally; they were dense and hard as cartilage, grating under the scalpel. The right coronary artery admitted only a bristle at its origin, and was extremely small throughout. The aortic arch was dilated to nearly double its calibre. Pleura normal, with but little fluid in its cavity. The lungs were pale, and contained numerous infarcts of a whitish tallowy matter—some the size of a pea; others smaller.

The upper surface of the diaphragm was normal; the lower surface was stained a dirty yellow, and adhered firmly to the left lobe of the liver. The abdomen was filled with dark, purulent fluid of a peculiarly offensive odor. The peritoneum presented the appearance of recent severe inflammation. The intestines were matted together; they contained gas.

The omentum and mesentery contained not a trace of adipose tissue, and the glands were enlarged; a number of them were of the size of a hen's egg; they were of a dirty gray color externally, and of a suet hue inside.

The stomach was dilated, the lesser curvature shorter than normal; its external coat was stained dirty yellow, which could not be removed by washing in water or alcohol. Cardia normal. The pyloric extremity was infiltrated, and around the pyloric orifice was a ring of suet-like tissue an inch thick, decreasing gradually toward the cardiac end. The pylorus was not completely occluded. At the anterior surface (wall) of the stomach, an inch and a half from the pylorus, there was a rupture, through the coats, an inch in length. There was also a communication between the stomach and liver. The interior coat of the viscera contained several cicatrices, but there was no indication of re-

cent inflammation. The lymphatics near the cœliac axis were of the size of hickory nuts.

The liver was immensely enlarged, and, as already stated, the upper surface of the left lobe glued to the diaphragm. Near the anterior border of the right lobe, and an inch to the left from the fissure of the gall bladder upper surface, was a white retracted cicatrix nearly an inch in diameter. Beneath this cicatricial tissue, the liver was firmly adherent to the stomach, and on careful dissection, an opening half an inch in diameter communicated with an abscess in the right lobe, which was filled with purulent, bilious fluid; the abscess communicated (by a very small opening) with the gall bladder.

The gall bladder contained four fluid ounces of dark green purulent fluid. The common duct was pervious. There were many fatty spots in the substance of the right lobe, and the left was of a darker color than normal.

The spleen was ovate, six inches long, four inches wide in the centre, and an inch thick. The trabeculae were broken down and the substance was in a partially disorganized state.

The pancreas was a little larger and harder than normal.

The kidneys weighed two ounces avoirdupois each; the right was pale and flabby; and when the capsule was removed the cortical substance appeared black in several places, as if bruised; the left was tense and turgid with fluid blood. When the blood was washed out it was of an orange red color. The peritoneal investment of both was stained dirty yellow green.

Microscopic examination of the colloid substance showed very large giant cells, nucleated, and oil-globules.

Remarks.—Wm. P. consulted me in June, 1879, for general debility, and stated that "he could digest but little food," and that he had obstinate vomiting, sometimes tinged with blood. His countenance was waxy pale, and his eyes glistening white. After careful examination, I made the diagnosis: Fatty heart, with valvular lesions, and disease (probably malignant) of the stomach. Six weeks later, he had a severe hæmorrhage. The family was apprised of the hopeless condition of the case, and at their request, medical treatment was discontinued. Pain, nausea and vomiting increased. He would drink water, milk or wine voraciously, but as soon as swallowed, it would again be ejected with force. Later, he complained of burning pain in the right side, cephalalgia

and insomnia. His wife stated that he had not had a motion of the bowels for five weeks prior to death. Also that the terrible fever and pain came on immediately after vomiting. I doubt not but that the effort at vomiting, the stomach being powerfully compressed by the abdominal muscles, produced rupture of the diseased coats of the stomach. Whether the liver was primarily affected, or the disease of the stomach was more rapidly developed, is difficult to determine.

His father and a brother died of a similar trouble. A sister has all the symptoms of gastric cancer, and a daughter, aged twenty-five, is now suffering from irritability and undefined pain in the stomach. Here, then, we are positive that the trouble is hereditary.

A Case of Opium Poisoning Successfully Treated by Fluid Extract of Hyoscyamus, used Hypodermically. By W. J. JONES, M. D., Waynesboro, Va.

On the night of January 2d, 1880, I was hastily called to see a young man about four miles distant in the country. The messenger stated that the patient had been taken suddenly ill, and was thought to be in a dying condition. Heart disease or apoplexy was conjectured by his friends. I rode at full speed, and arrived about one hour from the time the messenger started. Some half-dozen neighbors had collected, whom I found, together with the members of the family, in a high state of excitement. A few hasty inquiries gave me no clue upon which to base a diagnosis. I found the patient's respiration slow, labored and interrupted; his pulse small, wiry, and so feeble that I could scarcely detect it; his pupils were contracted and his body cold and clammy. It was plainly a case of *opium poisoning*, and I so announced it. He had vomited before my arrival. I directed that he be literally wrapped in mustard plasters from his feet to his neck; and, having none of the so-called antidotes for opium with me, except the fluid extract of hyoscyamus (U. S. P.), I injected twenty drops hypodermically. In half an hour, his pulse had become full and comparatively strong; his breathing regular, but slow; the capillary circulation had been re-established, and I was then prepared to quiet the excitement, by the announcement that the patient would recover. The anxiety and consequent interference of friends kept him sufficiently aroused. The next morning his pupils were somewhat dilated,

his breathing regular, and circulation good. Acathartic administered *per orem* acted well; but retention of urine, unconsciousness and inability to speak, continued until the fifth day. During this period, mustard plasters and baths were continued at intervals, and by persistent effort, he was made to swallow a small quantity of strong coffee. This was all the treatment. On the fifth day he recovered consciousness, and was able to talk and void his urine. On the 8th he had entirely recovered.

After his recovery, he said it was his custom to take from forty to sixty drops of laudanum at bed-time, whenever he had a cold, and had found it an excellent remedy. The diaphoresis produced by the opiate invariably relieved him. On this occasion, however, the usual dose failed to make him sweat, and he continued to repeat with increasing doses until he had emptied an ounce vial, with the consequences above described. He promised not to be guilty of a like indiscretion again.

Cases of Lead Poisoning Through a Common Article of Food.

By P. K. GRAYBILL, M. D., Amsterdam, Va.

In the month of November, 1879, I was called to see Mrs. D——, aged 56 years. I found her with an anxious, sickly pallor of countenance, tongue flabby and coated with brown fur; foetid breath, nausea, and occasionally vomiting, with entire loss of appetite. There was obstinate constipation, and the urine was scanty and high-colored; the pulse was feeble and the surface cool. The most distressing symptom was a severe griping, gnawing pain in the stomach and bowels, sometimes darting to the back and limbs, and subject to incomplete remissions. There was slight tenderness of the bowels, upon pressure, with some rigidity of abdominal muscles.

Being unable to diagnose a case with an unusual group of symptoms, I directed my treatment to the relief of the most urgent of them, and awaited further developments. At the end of three days, the patient was convalescent, and on the fourth day she was dismissed.

The day Mrs. D—— was dismissed, my attention was called to her daughter—aged 20—with the very same train of symptoms. This case continued for a week, with a remission of two days.

At the end of that week (December 1st), I dismissed her case to attend two of her brothers, aged respectfully 23 (Case

No. 3), and 17 (Case No. 4), with the same symptoms their mother had, though in a milder form. At the end of a week they were convalescent.

On December 8th all four of the cases are doing well, but none entirely comfortable. They all complain more or less; but none are confined to bed.

On December 15th, I found cases Nos. 1, 2 and 4 all in bed, with a return of the same symptoms, viz.: brown, flabby tongue, severe griping, gnawing pain in the stomach and bowels, darting sometimes to the back and breast, nausea and vomiting occasionally, and obstinate constipation. Cases Nos. 1 and 4 were discharged in a week, and were perfectly well on December 25th. Case No. 2 was not dismissed well until January 1st, 1880.

December 19th I was called to see another member of the family, Charles D——, aged 13—Case No. 5. This case was very mild, and the patient was going about in five days.

December 21st, the father of the family was attacked with the same symptoms, in a severe form. He was confined to bed for several days, and to the house for two weeks.

The disease, in almost every case, showed a tendency to relapse. One case relapsed three times; another four times. My treatment was palliative and expectant. Heroic doses of medicine were required to relieve *any* symptom, especially the pain and constipation. It was almost impossible, in some cases, to relieve the constipation. There was almost perfect torpidity of the bowels.

As to the cause of this peculiar disease, in an otherwise very healthy family, I at once began to inquire. I was quite satisfied that the disorder was due to some poisonous matter taken in the food or drink; and yet, upon inquiry, found the diet plain and sound, and apparently wholesome. The water was pure and healthy. Upon a further and more minute study of the cases and symptoms, I could not classify the disease, but decided, in my mind, that it was more like *lead poisoning* than any other disorder. With this conviction, I went to Mr. D's, and upon inquiry, learned that they used the very common article of diet called "apple-butter," and that it was kept in earthenware vessels, *glazed with lead*. I examined the vessel they had used from before and while they were sick, and discovered that all of the inner surface had been corroded. The glazing had disappeared, and a rough, whitish coating had formed instead. It is very evident

that the acetic acid of the apple-butter had decomposed the glazing of the vessel, and its contents became impregnated with a poisonous quantity of the lead. I further ascertained, that out of the nine members of the family, the *three who did not eat the apple-butter*, had not been sick, and the six who *were sick ate it freely*. Furthermore, while they were convalescing, and since they have all recovered, they have been eating apple-butter from another vessel—the glazing of which is unaffected—without being made the least sick thereby. Hence, I conclude that these were six cases of *lead poisoning*, the source of which was the lead glazing upon the inner side of the earthen vessel, in which a common article of food (apple-butter) was kept. I believe that either the glazing and burning of the earthenware were imperfectly done, or the apple-butter contained an unusual quantity of acid.

Different authors say that food may become impregnated with poisonous quantities of lead if it is acidulous, and is kept in vessels glazed with lead; but I have never before seen cases of the kind reported.

Three Anomalous Cases of Glaucoma. By JAMES L. MINOR, M. D., Late House Physician to Brooklyn Eye and Ear Hospital, etc., New York, N. Y.

A report of the following cases, seen at the Brooklyn Eye and Ear Hospital, may be of interest—illustrating, as they do, some of the conditions in which the glaucomatous process attacks the eye.

In the first two cases the disease seems to have been produced by medicinal agents, in constant use amongst ophthalmologists, while the third followed an ordinary operation upon the eye.

CASE I.—A female, aged 25, presented herself for treatment on August 5th, the diagnosis being ulcerative keratitis in the right eye, roughly limited to the upper and inner quadrant, with slight bulging in that locality, though haziness pervaded a greater portion of the membrane. The conjunctiva was slightly, and the iris apparently not at all, implicated. The eye tension was increased. The disease commenced six weeks previously, with the ordinary symptoms, viz., irritation, pain, photophobia, lachrymation and diminished vision.

A paracentesis of the cornea was performed, both to relieve the tension, and as a therapeutic agent. A solution of eserine was instilled for a similar purpose, and as adjuvants, warm applications and a pressure bandage was directed.

August 9th. Only temporary relief was afforded, and she was taken into the hospital, where the treatment could be properly carried out. Hunterloup's artificial leach was applied to the right temple; eserine solution, warm applications and pressure were directed to be continued.

August 12th. Under this treatment marked improvement appears. Pain and photophobia absent. Eye tension below normal.

August 16th. Fearing the development of iritis and posterior synechiae, the eserine solution was discontinued, and a solution of sulphate of atropia substituted. Tension still below normal (T—1). A few hours later, severe pain was complained of, and the tension of the globe was greatly increased. Phosphenes and photopsia were present. The iris was pressed forward. The atropine was not again used, but eserine was again resorted to, but failed to relieve. A paracentesis of the cornea had no better success. An iridectomy was performed on the following day, and gave permanent relief.

It is possible that glaucoma might have developed on the suspension of the eserine alone, but its sudden onset almost immediately following the introduction of atropine, points to that remedy as being the causative or exciting agent.

CASE II.—A male, aged 63, blind in both eyes for two years from cataract. The lens in the right eye lies completely in the anterior chamber, is cataractous, invested in its capsule, somewhat atrophied, and is movable in the anterior chamber. It is supposed that the dislocation of the lens occurred three months before he was seen at the hospital, from a blow on the right temple, received at that time. No disturbance has been caused by the dislocation. Removal of the dislocated lens having been decided upon, eserine was introduced with a view of causing extreme contraction of the iris, which would thus furnish support from behind, and militate against the passage of the lens again behind the iris. Eserine was introduced in the evening, and soon after its introduction the eye became painful—the pain increasing as the hours passed; and when seen on the next morning, the pain was undoubtedly excruciating—the great suffering having prevented the patient from sleeping during the whole night.

The globe was very hard (T+2). The iris was pushed forward, forcing the lens firmly against the cornea. All of these symptoms were relieved by removal of the dislocated lens and a portion of iris, which latter became entangled with the Graefe's knife, used in making the corneal incision.

It is at first rather surprising that glaucoma should be produced by eserine—a remedy much used in this disease. Yet, when it is considered that the iris lies behind the lens, in contact with it, so that any movement of the iris is interfered with and retarded by the lens, it appears strange that the reaction of the iris to such an irritation had not manifested itself before the eserine was used. The violent contraction of the iris from eserine must necessarily increase the friction and irritation of that membrane from pressure on the lens, and, as a result, glaucoma ensues.

CASE III.—A male, aged 68, operated upon for cataract April 3d, the method being that of Graefe. There was slight loss of vitreous humor, and, though not apparent at the operation, a small portion of the angle of the iris remained caught between the edges of the corneo-scleral wound. Good progress was made for two weeks, when pain in the eye was complained of, and that portion of the iris in the cicatrix began to bulge outward. The eye tension slightly increased. This condition was met by pressure, and eserine to reduce the tension and cause contraction of the pupil, in order that the iris might be dragged away from its adhesions. The relief was temporary and insufficient, and on *May 9th* the prolapsed iris was cut off, and its adhesions divided. This afforded relief for a time, but the tension soon increased again, to be temporarily relieved with eserine. On *June 22d*, an iridectomy was performed, giving permanent relief. The segment of iris removed was opposite the iridectomy done during the cataract operation.

The glaucomatous process in this case was probably due to irritation of the iris, which, as mentioned, was caught in the cicatrix of the corneo-scleral wound. That relief was not afforded by the first operation, may be accounted for by the possibility of an incomplete division of the iritic adhesions, or more probably, that the glaucomatous process having established itself, it failed to yield to so slight an operation as is frequently observed in glaucoma.

223 *Madison Avenue.*

Correspondence.

Congressional Appropriation to Claimants of Discovery of Anæsthesia.

Mr. Editor,—In your March “editorial” you heartily commend the Congressional bill asking an appropriation for the discoverer of anæsthesia, and you are confident that it meets with the approval and sympathy of the leading members of our profession throughout the country. Will you allow a few words on the subject from one who is not a leading member?

I am opposed to the whole scheme for the following reasons, among others :

1st The quarrel over the discovery of anæsthesia, has done more than any one thing, in my knowledge, to bring disrepute upon the medical profession. For a whole generation, its bitterness has estranged friends and created enemies. Volumes have been written upon it, and we are no nearer a solution of the question than we were when the fight began. The distribution of an appropriation would only revive this totally unnecessary controversy. Let it rest in the grave of the past, where it belongs.

2d. The discoverers of anæsthesia have doubtless been rewarded in another world. Is there any need to give their heirs an unexpected legacy to quarrel over?

3d. Their work involved no great sacrifices. Will their labors for humanity bear a moment’s comparison with the devotion of Easley and the host of martyrs, who deliberately walked into the valley of the shadow of death, and yielded up their lives for their fellow men?

4th. If humanity owes a debt to these discoverers of anæsthesia, what does it not owe to those who have died for it? If we begin to pay our debts, let us pay all. And, then, we must not forget that we owe McDowell for ovariectomy, Sayre for plaster bandages, Bigelow for litholapaxy, Sims for silver sutures, and so many more for one thing and another, that an entire “Journal” would not contain the list.

5th. Are we certain that we owe these discoverers of an-

æsthesia anything? When Morton patented his invention, he showed that he did not consider the interests of humanity alone. Jackson fought with him over the patent. Neither Wells nor Long showed much faith in their discovery, if such they regarded it. Long used ether "more than five times in five years," and then only to partial anæsthesia; while Wells used nitrous oxide fourteen times in two years for the extraction of teeth. Had either one of them believed in their discovery, as Dr. Sims did in his silver suture, they could have followed his example and made a fortune.

6th. Admit that humanity owes these men. Are the debts of humanity to be paid out of the United States Treasury? To make such a claim is simply to shirk an obligation which rests upon us as individual members of the human family. Mr. Editor, you and Dr. Sims, and the leading members of the profession, appear to feel a painful sense of indebtedness to these discoverers of anæsthesia. Now, suppose you start a subscription with the amounts you think you owe, and I will follow. That will prove the earnestness of your sympathy in this movement. Let us, as members of an honorable profession, keep our hands out of the public treasury. I for one want my profession to have nothing to do with Congressional appropriations.

An honest opinion ought to offend no one, when no offence is intended. I admire every man I mention above, and I humbly follow the leading members of the profession. In a raid upon the National Treasury, however, I am not to be counted upon. I left off foraging at the close of the war.

I want you to publish this as the expression of the views of one of the rank and file of medical men.

HENRY T. BAHNSON, M. D.

Salem, N. C., March 29th, 1880.

[We cheerfully publish the above letter from our esteemed friend and physician. We are sorry we cannot claim his influential services. But we are always willing to let those who differ with us regarding important subjects discussed in our journal have as fair a hearing as we claim for ourselves. Congress votes monuments to some eminent statesmen and warriors; and allows pensions to those who have served the country as soldiers, etc. Why may it not,

with the exercise of discreet judgment, vote an honorarium as well to those of their *countrymen* who have rendered to the *human race* a far greater boon than war ever brings? Beyond this, we have nothing further to say than to refer our readers again to the original paper of Dr. Sins, as published in our May No., 1877.—EDITOR.]

Ipecac as an Oxytocic.

In a paragraph on page 888 of the *Monthly* for February, the omission of a decimal point multiplies by ten (substituting "15 to 30" for 1.5 to 3 grains) the quantity of ipecac advised by Dr. Carriger as an oxytocic dose. And the fact that the item is credited to the *Revue des Sciences Medicales* illustrates the tendency to look abroad for what may be found at home. Dr. Carriger is a physician of Knoxville, Tenn., and his very interesting and practical paper was published in the *New York Medical Journal* for November, 1878. It has attracted attention abroad (*Med. Press and Circular*, 21 May, 1879; *Braithwaite's Retrospect*, American edition, LXXX, p. 185); but at home apparently only through reflected light.

Dr. Carriger cites five cases as typical of his employment of it for the last twenty years, and reaches the conclusion that it is a valuable oxytocic where the pains are irregular and inefficient, by virtue of its coördinating influence over the uterine action.

Dr. Carriger's experience appears to add a new chapter of evidence to the doctrine that ipecac is a nervous stimulant, and not a depressant, as is so generally taught.

Very respectfully,

A. A. WOODHULL, M. D.,

Assistant Surgeon U. S. Army.

Point San Jose, San Francisco, Cal., March 3, 1880.

[We are very much obliged to our distinguished correspondent and author of the excellent and practical work on the *Non-Emetic Uses of Ipecacuanha* for his correction of our error. The authority of his name in this connection gives a prominence to the importance of the subject, which, perhaps, it would not otherwise have received.—EDITOR.]

Original Translations.

From the German and French. By WM. C. DABNEY, M. D.
Charlottesville, Va.

Treatment of Cancroidal Affections by Chlorate of Potash.—At a meeting of the Société de Chirurgie, M. Despres read a report on the work of M. Pilate on this subject. M. Pilate states that he has learned from experience that, while chlorate of potash has a certain efficacy in the treatment of cancroidal ulcers of the skin of the cheek, forehead and face, it is worthless in similar affections situated on mucous membranes.

M. Despres stated that he was not a partisan of this mode of treatment of true cancroids, but that in certain less malignant affections intermediate between lupus and epithelioma, it gave good results.

M. Terrier said he had frequently seen cancroidal ulcers at Bécitre and the Salpêtrière, and had obtained some temporary good results—especially in those cases where the affection approached in character adenoma of the sweat glands—by the use of chlorate of potash.

M. Lefont said that the diagnosis of the different ulcers of the face was extremely difficult. Every now and then he had seen patients, on whom he had proposed to operate, and who were cured by simple emollients. He mentioned one case in point: A patient had, at the inner corner of the eye, an ulcer which he believed to be cancroid, and he decided to operate on him; but on the application of a common bread poultice, the tumor disappeared. He thought it proper to add, however, that this patient had applied living snails with the hope that they would relieve him of his tumor.

M. Verneuil said he had studied ulcerations of the face very carefully, and did not consider their diagnosis so difficult as M. Lefont had stated. They should be divided into three classes: (1) *Sebaceous adenomata*, which were extremely rare; (2) *adenomata of the sweat glands*; and (3) *cancroid*. In all the cases, where chlorate of potash had produced a cure, the tumors or ulcers belonged to the second class—adenomata of the sweat glands. In similar cases he had obtained cures from simple cataplasms; but they were more promptly cured by the application of some caustic, such as chromic acid.

M. Gugon said there were ulcerations of the face having

very much the appearance of cancrroid which were curable without an operation. He mentioned a case in which the skin over the lachrymal sac was affected, which was cured by skin grafting. The chlorate of potash, he thought, had no elective action; it had its place like other topical remedies, but was not a specific.

M. Perrin said the difficulty of the subject was due to the fact that tumors of the face were frequently transformed from one variety to another. An old man had on the side of the nose a "degeneration" of the sebaceous glands. In order to relieve this, he used acetic acid—a remedy which has of late fallen into disuse. Under its influence, the tissues returned to their normal condition; but ten years afterwards, the same person had a cancrroid which extended up to the angle of the eye.

Neuralgia Treated by Aconitine.—A very interesting paper on this subject appeared in *Le Practicien*, for February 9th, 1880. The author of the paper first mentions a fact with which most physicians are familiar from experience—that certain cases of neuralgia, especially when the fifth pair of nerves is implicated, are very rebellious to treatment. It was for these cases especially that Dr. Maurice Raynaud advised the salts of copper last year. The article in *Le Practicien* is taken to a great extent from a recent paper on the same subject in the *Gazette des Hôpitaux*. In 1877, Dr. Oulmont published a paper on the subject, and in many of the text-books on therapeutics it has been alluded to; but the indications for the employment of the drug have not been specified.

Aconitine is especially indicated in those cases of facial neuralgia which are not intermittent, and in which there is no well marked periodicity. These cases, which are usually due to cold, or the "congestive neuralgias," as Gubler called them, are most benefitted by aconitine. In some cases, a cure is brought about very rapidly, in two or three days.

Oulmont mentions a case in which the pain had lasted seven days without intermission, and which had proved entirely rebellious to quinine, which yielded readily and permanently to $\frac{1}{4}$ th of a milligramme (about $\frac{1}{800}$ ths of a grain) of nitrate of aconitia.

The success is much more marked and more prompt in recent than in old cases. Three cases are cited as illustrations, in one of which the neuralgia had lasted one month; in another, two months; and in a third, five years. All were cured—the first, on the seventh day; the second, on the thirteenth; and the third, at the expiration of three weeks.

Aconitine sometimes acts well also in those cases where the neuralgia is secondary to dental caries, caries of the jaw, internal otitis, paraplegia, etc. In simple neuralgias of the fifth pair, Gubler considered its effects "really marvellous."

Small doses should be given, and at long intervals. When there is any periodic tendency, quinine should be combined with the aconitine.

The dose ranges between half a milligramme and two milligrammes ($\frac{1}{300}$ ths of a grain to $\frac{3}{100}$ ths of a grain) two or three times a day.

The Effect of Smoking or Working in Tobacco on the Health of Women.—There was a very interesting discussion on this subject at the meeting of the "Société de Médecine Publique et d'Hygiène Professionnelle" on the 24th of December last. The discussion was brought about by a paper on the subject read by M. Decaisue at a previous meeting.

M. Delauray gave the results of a series of inquiries which he had made in a certain quarter inhabited in great part by women who worked in tobacco. His researches had especial reference to the influence of tobacco on pregnancy and lactation, and consequently on the development of the embryo and the growth and nourishment of the child. He consulted quite a number of the midwives in the neighborhood, and learned from them that these women were often sick during their pregnancies. They stated, furthermore, that the tobacco affected the milk of the nursing mothers, making it clear and less rich than normal. The children did not thrive, and many of them died. One of the women said that it was notorious that tobacco often caused abortions, and women who could do so, stopped work when they became pregnant. Three cases were mentioned in which the women had repeated miscarriages as long as they continued at their work, but went to full term subsequently when their employment was temporarily abandoned.

Dr. Sarré, who had been attached to the "Bureau of Benevolence" in that quarter for twenty-six years, advised the mothers to wean their children.

M. Brouardel said that while M. Delauray's investigations were valuable, they could not be considered as furnishing positive proof of the injurious effects of tobacco on pregnant and nursing women till it was determined whether or no similar results followed labor of any other kind. He mentioned that M. Paul had observed very similar results in workers in lead.

M. Decaisue said that so far as smoking only was con-

cerned, he did not think women who were given to this practise any more liable to abortions than others, and drew attention to the fact that in a quarter where many of the women smoked, miscarriages were less frequent than in some other sections.

Inguinal Castration in Cases where the Testicle is Retained in the Inguinal Canal.—M. Tewillan read a paper on this subject before the Société de Chirurgie on the 21st of January last, which elicited considerable discussion. He commenced by referring to the investigations of Monod, who had collected fifty cases in which the operation had been performed. From the result in these cases, it would appear that castrations in inguinal retentions are not so dangerous as would naturally be supposed from the communication of the peritoneum with the vaginal tunic. There was only one case in the fifty in which death could fairly be attributed to peritonitis, and in three cases where the peritoneum was injured, a cure was obtained.

M. Monod mentions one case in which a boy four years old received a blow on the testicle, retained in the inguinal canal; and years afterwards, the same person had two attacks of gonorrhœa, as a result of which, the testicle became enlarged and tender, and was the seat of lancinating pains. After exhausting all other means of relief, it was removed in May, 1879, and Lister's dressing applied to the wound. It healed readily, but on microscopic examination, there was found a cancerous growth in the organ; up to this time, however, no relapse has occurred.

M. Sée called attention to the fact that the ligation of the cord *en masse* which was indicated in this case, might sometimes, when there existed a communication between the peritoneum and the vaginal tunic, cut off a natural mode of drainage during peritonitis.

M. Despres thought it would be advisable to ligate the vessels separately, as they were exposed, so that the peritoneal cul-de sac would be avoided if it was present.

M. Le Dentu said he now considered the operation of castration under these circumstances much less dangerous than he had formerly thought it, so far as injury to the peritoneum was concerned. In cases where the testicle was cancerous, multiple adhesions had always formed around the tumor—thus cutting off the communication with the peritoneum. He did not know whether this was often the case under other circumstances.

M. Ferrier said [with reference to the remarks of M. Des-

pres] that the normal anatomy of the parts seemed to have been overlooked. If there was a communication between the peritoneum and the vaginal cavity, and if castration was performed, the peritoneal cavity would be opened, whether the cord was ligated *en masse* or not.

M. Guyon, during his hospital experience, had never had any trouble with the ligation *en masse*, except that the presence of the threads may possibly retard cicatrization.

M. Despres said he had seen Velpeau ligate *en masse*; and of three cases thus operated on in the course of a year, two died from "purulent infection."

M. Lucas-Championniere had obtained healing by first intention in his cases; and he attributed his success to the employment of Lister's antiseptic method. He ligated the cord *en masse*.

M. Panas said that Nélaton never ligated *en masse*—not because he feared tetanus, but hæmorrhage. If the ligature in these cases is drawn too tight, the tissues in the centre of the cord are divided, and hæmorrhage occurs in consequence of the withdrawal of pressure. Furthermore, the cord is drawn very far up the inguinal canal; and in order to reach it and control the hæmorrhage, it is necessary to make the incision almost up to the peritoneal cavity.

M. Houel remarked that in some cases the epididymis descended much lower in the inguinal canal than the testicle.

Troublesome Symptoms Occasionally Caused by Tincture of Arnica when Applied to Wounds.—M. Donaud has reported to the Medical Society of Bordeaux, two cases in which the skin was remarkably susceptible to the action of tincture of arnica when locally applied. One of his patients having a little contused wound on the leg, he dressed it with pure tincture of arnica. There developed in consequence a genuine blister and inflammation, which forced the patient to keep his room, and even his bed for some days. This man then recalled the fact that he had twice before applied arnica with similar results.

Another person got an insignificant scratch on his leg by a fall, and the same troubles were produced by the application of tincture of arnica.

In many cases, therefore, he thinks arnica is irritating, and is therefore an unsuitable dressing for wounds.

M. Boursier recalled an analogous case. One of his patients applied, to a little wound on the leg, pure tincture of arnica. As a consequence, little ulcers formed all along the leg, which did not heal for more than a month.

M. Demons said he had seen a considerable abscess form at the site of a little excoriation, which had been treated with arnica.

M. Armaignae said it was not surprising that the tincture of arnica should produce such results, when the alcoholic extract of arnica would produce vesication if applied to the skin.

[I have recently seen a case of injury to the knee without abrasion of the skin, in which the application of equal parts of tincture of arnica and laudanum caused intense pain, of a burning character, and considerable redness. The trouble was evidently due to the arnica, as it was tried three separate times with similar results each time, and the laudanum alone produced no such results.—W. C. D.]

Bright's Disease and its Connection with Other Affections.—By Prof. Von Bamberger, of Vienna. (*Volkmann's Sammlung Klinischer Vorträge*, No. 173.) The present able and instructive paper, by Prof. v. Bamberger, is based upon an analysis of 2,460 cases; he gives not only his own views, but those of other physicians who have studied the subject. Prof. Bamberger holds to the view of the pathological unity of all forms of Bright's disease. From an anatomical standpoint, he does not think it possible to draw any sharp line between the parenchymatous and the interstitial affections of the kidneys. Both forms are found together, and they are often found along with amyloid degeneration. Klebs considered the interstitial, small-celled infiltration as primary, and the epithelial affection as secondary. On the other hand, Buhl thought that the first change was fatty degeneration (the large white kidney), and that the granular, atrophic condition (the red, contracted kidney) was secondary. Still another view is, that both these conditions are secondary, and may be traced to some pressure on the ureters, and the consequent interference with the discharge of urine from the kidneys.

Bamberger himself does not accept any of these views, and states that in the kidneys of patients who died of Bright's disease, which have been examined by him, *all* the constituent elements of the cortical portion were diseased.

From a clinical standpoint, also, he thinks no sharp line can be drawn; for in the majority of cases, the symptoms of both interstitial and parenchymatous inflammation are present; and at the autopsy, it is not unusual to find that the most prominent symptoms during life have been those of one form, while the other is most marked at the autopsy.

He divides cases of Bright's disease into two classes:

(1) *The primary form*, in which the kidney affection is the first to appear, and is independent of other diseases, though complications may be present. Of his cases, 33 per cent. were of this character.

(2) *The secondary form*, which occurs after important changes in the organism, and is the result of such changes; 67 per cent. were of this character.

Anatomical differences between the primary and secondary forms are not essential. In both, the affection may be acute or chronic, interstitial or parenchymatous, or a mixture of the two. The amyloid degeneration is usually found in the secondary form. The essential clinical difference is this: In the secondary form there are scarcely any outside symptoms except those which belong to the disease causing the kidney affection. In the primary form, hypertrophy of the heart occurs in about 42.6 per cent. of the cases, while in the secondary form it is only seen in 3.3 per cent.

The following table shows the causative affections, their frequency, etc.:

PRIMARY DISEASE.	BRIGHT'S DISEASE—FORM.				
	Acute.	Chronic.	Atrophic	Total.	Per cent. of 2460
Tuberculosis, phthisis and scrofula.....	47	257	77	381	15.7
Valvular disease of the heart.....	19	117	86	222	9.1
Pregnancy and puerperal condition....	80	56	16	152	6.3
Disease of the urinary organs.....	11	72	51	134	5.5
Suppurative processes.....	42	77	10	129	5.2
Alcoholism and cirrhosis of the liver..	16	68	33	117	4.8
Cancer	13	55	35	103	4.2
Emphysema of the lungs.	6	51	28	84	3.5
Typhus [including typhoid?—W.C.D.]	42	16	2	58	2.4
Syphilis.....	4	29	14	49	2.0
Scarlatina.....	18	18	0.7
Intermittent fever.....	1	9	3	13	0.5
				2460	

All the affections, causative of Bright's disease, may be divided into three classes, according to the manner in which they act:

- (1) Those in which a toxic or infectious substance exists, which passes out by the kidneys and sets up inflammation.
- (2) Those which interfere with the circulation.
- (3) Those in which some of the excretions are retained.

The primary form of the disease is induced by cold; 55 per cent. of these cases were in men, and 45 per cent. in women. The cause of the rather greater number of men than of women affected is that the former are more exposed.

The conditions which resulted from Bright's disease were: Cerebral hæmorrhage in 10 per cent. of the cases. Under these circumstances, endocarditis and valvular troubles nearly always exist as complications. Encephalitis is less common and meningitis is rare. Pneumonia occurs in 22 per cent. of the cases; pleurisy in 7 per cent.; peritonitis in 2.7 per cent.; dysentery and intestinal catarrh in 13.5 per cent.; general dropsy in 26.6 per cent. Fatty degeneration of the heart was observed in 12 per cent.; and pericarditis in 12 per cent.; endo- and myo-carditis were rare. Hypertrophy and dilatation were the most common cardiac troubles. They were found more often with the granular contracted kidney, than with the large swollen kidney. Excentric hypertrophy of the entire heart (the left side being most affected) was observed in 41 per cent.; eccentric hypertrophy of the left side in 31 per cent.; simple hypertrophy of the left heart in 19 per cent.; simple dilatation was rare; concentric hypertrophy very rare indeed.

Prof. Bamberger then proceeds to criticise the different theories as to the connection between hypertrophy of the heart and affections of the kidney.

(1) The theory of Bright as to the action of the chemically altered blood is untenable, because in many other cases where hypertrophy of the heart is found, the blood is unchanged in quality.

(2) Traube's theory of the contraction of the blood-vessels and the retention of water he considers false, because hypertrophy of the heart frequently occurs without any contraction of the blood-vessels; and even if the circulation in the kidney was destroyed, the tension in the aorta would not be materially increased; furthermore, the hypertrophy of the right heart cannot be explained thus.

(3) The theory of Johnson, and of Gull and Sutton, who consider the hypertrophy of the heart due to disease of the arteries and capillaries in many organs. This does not explain the hypertrophy of the right heart, which Bamberger thinks is often primary [and not secondary to that of the left heart as is generally thought]. Thoma, Ewald and Buhl consider the affection of the vessels a result of the hypertrophy.

(4) Buhl's theory, according to which the affections of the heart and kidney have a common cause, both occur simulta-

neously, and are due to inflammatory processes and relative narrowing of the aortic system. In answer to this, Bamberger says that the heart trouble usually comes on in the later stages of Bright's disease; and furthermore, the inflammations found along with Bright's disease do not lead to hypertrophy—21 per cent. of all the cases of hypertrophy occurred when there was not a trace of inflammation.

(5) Senator's theory, which makes the hypertrophy of the heart the result—in parenchymatous nephritis—of the retention of urea; in interstitial, of the increased aortic tension. He controverts this hypothesis by saying that a very decided increase of pressure may occur when the quantity of urea discharged is very great; and hypertrophy and dilatation frequently precede the granular atrophy [which is supposed to increase the aortic tension].

(6) Ewald's theory, according to which there is increased resistance in the capillaries, increased tension in the aortic system, and more forcible action of the heart. Bamberger replies to this that the retardation of the stream in the capillaries is not proven.

(7) Bamberger himself considers the hypertrophy due to the retention of water, and the increased action of the heart caused thereby. The hypertrophy of the heart and dropsy are the results of the disease of the kidneys, and are caused mechanically. All other affections occurring at the time are of an inflammatory nature. Material capable of setting up inflammation may be retained in the blood in consequence of the defective action of the kidneys.

From Spanish and Italian. By CHAS. R. CULLEN, M. D. (P. O. Richmond, Va.), Henrico Co., Va.

Vaginitis.—Dr. Gallard accomplishes the cure by a gradual dilatation of the vagina by suppositories, each succeeding one being larger, and all being made of iodoform and cocoa butter, 30 grains of each, to fresh lard, 200 grains. If there is only pain without much visible mucous inflammation, he adds belladonna, and lard in the same proportions. These drugs seem to be good and effective remedies.—*Revista Medicina*, Madrid, No. 79.

Uterine Inertia.—Dr. Hoffman reports a case where ergot by the mouth and subcutaneously failed to contract the womb, when recourse was had to alternate applications of hot water and ice, which produced contractions, and saved the patient's life.—*Ditto*.

Tetanus.—The *Montavidean Revista* refers to a case of a boy, taken with tetanus and transferred to the city hospital. Dr. Bryan administered frictions (over the whole body) composed of turpentine, 80 grammes, camphor, 3 grammes, extract of hyosciamus, 1 gramme, and hypodermic injections of curara, 10 centigrammes, distilled water, 10 grammes, injected every six hours internally, was given :

Ry. Bromide of potassium.....	1	gramme.
Hydrate of chloral.....	1	“
Syrup of orange.....	15	“
Water.....	25	“ M.

After several days' continuance, inhalations of chloroform and hot baths were used. In six weeks the patient was entirely cured.

[*Note by Translator.*—I treated a case successfully by hydrate of chloral, 20 grains, and 3 drops of fluid extract of St. Ignatius bean, every three hours, with the usual preparatory cleaning out of both bowels and kidneys; but, though the case recovered, I am doubtful whether it was a cure from the remedies, as a strong constitution will often recover under any treatment. Drugs are not always remedies, though the credit is given them.]

In Guy's Hospital, Dr. Taylor reported 77 cases since 1876, 51 of which are worthy of mention—43 died and 8 recovered. As to treatment, calabar bean was used in fourteen cases, with three cures. Doses by subcutaneous injections, 85 milligrammes minimum, and 12 centigrammes maximum. Hydrate chloral was administered in nine cases alone, and in three others with other medicines—doses, 20 to 26 grains—with three cures. With morphine, administered five times, no cures; with curara, four cases, and one cured. Experiments, in one or two cases each, with aconite atropine, cannabis indica, cicuta, nitrite of amyl, bromide of ammonium and quinine, and no cures from any of them.

Amputation Compressor.—Dr. Gaujot, of Paris, introduces a new instrument for compressing the soft parts before amputation of a limb. This instrument is operated by two assistants, who contract the cord around the limb sufficient to prevent either arterial or venous circulation, and seems to exercise perfect control over the circulation, much more than the Esmarch's bandage. After the contraction, the knife and saw are used as ordinarily.—No. 81.

Notable Case of Pseudo-Hermaphroditum.—In the Civil Hospital of Valencia is an infant, three months of age, which had been baptized by the priest as a male child; but as an

error in the sex has been made, the name has to be changed. The child has a penis of good size, and with glans and prepuce; but in the place of the urethra, it has only the appearance of a canal, while the water passes above from the parts usually belonging to the female; and in other respects it is like a female, except that on the left side the scrotum is partially developed with a testicle, but without a testicle on the right side, where the scrotum presents the appearance of a large lip. The aperture of the vulva is $\frac{1}{100}$ part of a metre in diameter, with rudiments of nymphæ and a semblance of a hymen follicle, which obscures the parts adjacent. The length of the penis is $\frac{3}{100}$ of a metre. As yet it is impossible to assert to which sex the child belongs, and the attending priest desires that affairs regarding the baptism may remain *in statu quo* until its age and its passions may decide, when its baptismal name can be rectified, if it is more female than male. Can a urino-plastic operation remove the disgrace of this creature?—*Ibid*, No. 81.

Erysipelas—By Dr. Aphel. This disease has been treated by a large number of drugs for all purposes; and without going definitely into the different theories, mention is made of several plans of treatment. Sydenham recommended bleeding, until Williams, Louis, Chomel and Blache showed the injurious effect of bloodletting. Bousquet asserted that those bled were the worst cases in results. Trousseau and Hebra followed the expectant method, and considered death the exception and recovery the rule. Gintrac favored purgatives and emetics; Baglivi, purgatives; Newman, Desault, Behier, emetics; Graves, calomel; many English physicians, turpentine; Kaff, digitalis; Storck, diaphoretics; others antispasmodics; Wolph, Bourgogue, and all modern clinicians, salts of quinine; Jaccoud limited his method to wine of quinia, according to the amount of pain, using emetics when catarrhal, and laudanum and alcohol in delirium.

The topical treatment likewise varies. Niemeyer favors cold as the best remedy, with which Oppolzer and Hebra coincided, and used also mercurial ointments; Piltra preferred collodion, to which Heyfelder, Briquet, Spengler, Guersant agreed. Oppolzer preferred collodion with gutta percha; Hoenigshojer, collodion with oil and turpentine. Jobert used nitrate of silver in pomade; Senes preferred mercurial ointment; Velpeau, sulphate of iron with lard; others have used iodine, sugar of lead, powdered starch, flour, camphor preparations, tannin, creosote, alum, etc. It is difficult to decidé which is the best treatment, but experience

seems to point to bicarbonate of soda, largely diluted in water, to be drunk warm. During fever, give quinine and salicylic preparations, and tonics to the debilitated. When fever runs high, aconite and digitalis are indicated. During delirium, antispasmodics should be given, and opiates. Tommasè prefers chloral. English physicians use belladonna, and unite aconite with it.

The application of cold cloths lessens the local fever. Arnica, Goulard's extract nit. arg. are very properly used. When the swelling is very great, scarifications are needed to prevent gangrene.

The following conclusions seem to be rational :

1. Erysipelas being an enervating disease, alcohol is needed and generous food. 2. When catarrh is present, treat it promptly. 3. Internally, quinine and salicylic acid. 4. The local treatment is most important. This treatment is best carried out according to Lucke by turpentine ; by Polli, by sulphites ; by Tenosund, by embrocations of ether, camphor and tannin.—*Gazzetta Medica di Roma, Italy.*

Intermittent Fever.—Dr. Corominas reports a case of violent quotidian agues which failed to be cured by quinine, and was treated by cobweb in three-grain doses every four hours. The day after, no ague ; the next two days, half the quantity, and no return of the ague.—No. 80.

Analyses, Selections, etc.

Hydrobromic Ether seems to be growing rapidly into professional favor. Dr. Laurence Turnbull delivered a lecture on the subject before the class of the Pennsylvania College of Dental Surgery, Philadelphia, February 6th, 1880, which was published in the *Medical and Surgical Reporter*, March 6th, 1880, from which we make the following extracts :

“Hydrobromic ether possesses the following properties :

1. It is an anæsthetic which, with care, may be safely administered to man and animals.

2. It is more rapid in producing anæsthesia than even chloroform, and is eliminated, by respiration and the kidneys, more rapidly than any other of this class of agents.

3. The heart and respiration are but very slightly affected, unless employed in excessive quantities.

4. Vomiting is more rare than with ether or chloroform.

5. Owing to its odor being more rapidly removed, it can

be used with comfort in a private office or the patient's chamber; and as a rule, the odor is more agreeable than that of ordinary ether.

6. Hydrobromic ether not being inflammable, and producing its anæsthetic influence on the muscles of the throat, any operation can be performed on the mouth and throat with satisfaction to the surgeon and comfort to the patient.

7. In vivisections it acts more promptly than ether upon animals, requiring, as a rule, only two minutes to bring a dog under its influence, and is not fatal like chloroform.

In 100 cases there were 12 cases of slight *nausea* after the operation, and 8 cases of *vomiting* during the operation, but always where the patient had partaken freely of food of a solid character just prior to the use of the anæsthetic.

Asphyxia was not noticed in any of the cases.

In no instance was there any evidence of *fainting*.

Hysterical Excitement.—This was noticed in some six cases, but soon passed away, leaving no bad symptoms.

In four cases was there some *prostration*, evinced by cold moisture on the hands and face, but of very short duration.

The rapidity with which the patients came under the anæsthetic influence of hydrobromic ether; ten cases in one minute and a half, twenty in two minutes, ten in two minutes and a half, forty in three minutes, ten in four minutes, ten in five minutes.

How long did it take to recover consciousness from the effects of the hydrobromic ether? In fifty cases from two minutes to two minutes and a half; in thirty cases three minutes; and in twenty cases four and a half to five minutes.

Struggling, coughing or gagging, which occurs so frequently during etherization, was very rare under the anæsthetic influence of hydrobromic ether. This form of anæsthetic is not apt to produce *headache*. No *giddiness* attends the use of hydrobromic ether.

Thus, concluding the subject, he performed three experiments, viz., first, placing a pigeon under a glass frame of a little over a square foot in size, in which was a sponge saturated with the bromide of ethyl. It was seen that for some minutes the bird was not affected, but at about the *third* minute it seemed to lose the power of locomotion and gradually settled down into a state of quietude for a few seconds, when it appeared to be somewhat nauseated, ejecting a few grains of corn, and then again settled into a quiet sleep. Thus it remained, the air being admitted to it freely, for about two and a half to three minutes, then suddenly flew

around the room, entirely recovered. While the bird was in the glass, a dog and rabbit were also placed under its influence by inhalation, taking about two minutes for the rabbit, but as the dog succeeded in obtaining a larger amount of air, it took a somewhat longer time. While under the influence there were slight tetanic movements of the extremities, and soon after removing the ether slight stertorous breathing, from which, in the space of three to four minutes the animal had entirely recovered consciousness, although it did not seem to be inclined to move. The rabbit was apparently dead, but had it been taken into fresh air, and antidotal remedies and artificial respiration applied, it might have recovered, but these not being tried, it succumbed. Upon making a *post mortem*, the right side of the heart was found engorged with dark venous blood, the left side very much contracted and empty. The lungs were beautifully shown by inflation, and but very slightly congested at their base, not enough to have had any effect in causing death. The kidneys were also very much congested with venous blood. The brain was entirely free from blood, not even the puncta vasculosa being seen, but at the torcular Herophili was found a large drop of the same dark blood.

Hydrobromic Ether as an Anæsthetic in Labor.—I administered it February 24, 1880, to Mrs. R. T. P., aged 30, a lady with a narrow pelvic outlet and very rigid os uteri, who had been in labor with her fourth child for nine hours, having made but little progress. The hydrobromic ether was used in tablespoonful quantities when the pains were most intense and distressing, and gave as prompt relief as ether, and yet it did not interfere in the least with the expulsive efforts. Her pulse was only increased six beats; no apparent disturbance of her respiration, only a feeling of fullness in the chest. The baby, a female, was born full of life and vigor, and cried lustily. The patient had not a bad symptom from the use of the anæsthetic. The whole quantity employed was five tablespoonfuls. There was no hæmorrhage, and the placenta was expelled with but slight traction."

[It may be well to add that we are authoritatively advised that Messrs. John Wyeth & Bro., of Philadelphia, Pa., manufacture the purest article of hydrobromic ether on the market. Drs. Levis, Turnbull, etc., in all of their later anæsthetizations used the agent as manufactured by this house.—*Editor.*]

Tracheotomy for Croup in the United States.—Dr. Wm. M. Mastin, of Mobile, Ala., contributes to *Gaillard's Medical*

Journal, January, 1880, a most interesting analysis of 863 tracheotomies for croup in the United States that we deem worthy of full abstracts.

The operation recommended by Mr. Home was first successfully performed by John André, of London, in 1782, who opened the windpipe of a girl, five years old. In 1814, followed the case of Thomas Chevalier. In 1825, Bretonneau, added the third successful case on a child in the last stage of croup. Since then, successes have been so numerous as to make the operation justifiable. Great fatality attended the operation during the first years of its growth. But under the untiring advocacy of Trousseau, the tide of opinion changed. In 1858, he presented to Paris Academy of Medicine the result of 146 tracheotomies by French surgeons, with 57 recoveries, with an additional list of 39 operations and 17 cures.

In Great Britain, at first, the ratio of successes did not keep pace with those of the French, and the operation there languished. But as the subject was more deeply investigated, English surgeons began to appreciate that their duty did not end with the stroke of the knife; greater attention was bestowed upon the subsequent treatment; and, as a consequence, the statistics of Spence, Cruickshank and Buchanan, gave results as good as those of French surgeons; and now, in Great Britain, the operation appears to be an almost universally recognized procedure.

In America, scarcely a single step was taken in regard to tracheotomy until after it had been advocated in England. Then more attention was given to the French reports, and now American statistics will show that we are keeping pace with trans-Atlantic progress.

At present, the advocates of tracheotomy comprise the entire French school, the surgical lights of Germany, a host of eminent men in Great Britain, whilst in the United States it has the sanction of almost every medical man.

In collating the 863 tracheotomies in the United States for obstructive laryngitis, circular letters were sent to the most prominent surgeons in each State; and although many have not replied, *very many* have responded. Hence Dr. Mastin's statistics contain a greater number than he has seen elsewhere published. [It is to be hoped that every American medical man who has performed tracheotomy for obstructive laryngitis, or who knows of any cases not reported, will at once communicate the facts to Dr. Mastin, who may contribute a more elaborate publication on the subject.—*Editor Va. Med. Monthly.*]

Of the total 863 tracheotomies tabulated, 296 were for *diphtheritic croup*, with 41 cures, and 255 deaths; 194 *pseudo-membranous croup*, with 47 cures and 147 deaths; 373 *croup in general*, with 90 cures and 283 deaths. Total recoveries, 178; total deaths, 685.

Arranged according to States, the following general table is compiled from the exact statistics of Dr. Mastin :

STATES.	Total Cases.	Suc-cesses.	Not Sucesses.
Alabama.....	17	4	13
California.....	3	1	2
North Carolina.....	1	0	1
South Carolina.....	4	1	3
Colorado.....	1	0	1
Connecticut.....	4	2	2
Dist. Columbia.....	1	0	1
Georgia.....	5	1	4
Illinois.....	34	11	23
Indiana.....	8	1	7
Kentucky.....	16	2	14
Louisiana.....	3	0	3
Maine.....	3	0	3
Maryland.....	17	3	14
Massachusetts.....	51	17	34
Michigan.....	8	0	8
Minnesota.....	5	1	4
Missouri.....	95	9	86
Mississippi.....	7	1	6
New Jersey.....	2	1	1
New York.....	432	93	339
Ohio.....	14	2	12
Pennsylvania.....	88	19	69
Tennessee.....	5	1	4
Texas.....	25	6	19
Vermont.....	3	1	2
Virginia.....	6	0	6
Unknown State.....	5	1	4
Total.....	863	178	685

It is a question far from being settled whether or not membranous croup in its pure form occurs further South than a certain latitude; and considerable doubt has been expressed as to its ever being seen in the Southern States. That we do have, however, a *membranous laryngitis*, which cannot be called pure *diphtheritic*, is certain, and during the winter

months in Mobile [and elsewhere] there occasionally occurs a disorder which is characterized by first attacking the larynx, and soon followed by the effusion of a pseudo-membrane, a sthenic condition of the system, without glandular involvement, no constitutional infection, very seldom pharyngeal complication, no evidence of contagion or infection—the cases being more generally single; and in those cases which have recovered, none of the sequelæ of diphtheria have supervened. This certainly looks like croupous laryngitis; and the profession of Mobile is unanimous in the belief that *true pseudo-membranous croup* does *occasionally* occur in that climate. Dr. Mastin thinks that we do have this latter disease in the South in about the proportion of other throat and lung affections—all pulmonary and laryngeal troubles being much less frequent with us than in a colder climate.

In view of these facts, Dr. Mastin has been very particular, in classing the cases in his tables, to put together only those which are distinctively either *diphtheritic* or *croupous* laryngitis. In diphtheria, undoubted evidences of the constitutional nature of the disorder were required before incorporating the case among this variety—the same precautions being followed regarding the cases of pseudo-membranous croup.

The cases here presented were collected from all conditions of life—from the hospital and private practice; hence, they give a more correct idea of the results really to be obtained than if the collection had been limited to hospitals and experiences in large and crowded cities, as is generally done in such reports.

Is tracheotomy in itself of great danger to life? The trachea is a cylinder, composed of cartilaginous rings, lying in the median line of the neck; it is crossed by vessels at some parts; and lying across its front surface is an intensely vascular gland. But the position of all these structures, and their relation to the trachea at different periods of life are known. And Dr. Mastin can scarcely see how any one will venture to say that tracheotomy, properly performed, is, *per se*, of particular danger.

But in examining the list of dangers set down by many surgical authorities, they all seem to resolve themselves into the single one of hæmorrhage; and the occasion of this fear is quickly understood by referring to some of the methods proposed for its prevention. Yet, in reality, but few instances are recorded of death from direct loss of blood. Gross has heard of a half dozen fatal results from hæmorrhage.

rhage, but has never seen it himself. In over 200 cases, Trousseau met with but one fatal case from this complication. Dr. Joseph Pancoast, in many cases, has never met with any serious difficulty, and sees nothing to endanger life in the mere manipulation. Dr. Pilcher, of Brooklyn, notes 19 cases out of 121 operations where hæmorrhage was troublesome, but does not mention a single death from that source. Cheilus believes dangerous hæmorrhage to be feared from the thyroidean arteries and venous plexuses when the trachea is incised below the cricoid membrane. Drs. D. Hayes Agnew, John Ashhurst, J. H. Packard and R. J. Levis, of Philadelphia, who have repeatedly performed tracheotomy, say there is very little risk attending it.

All surgeons, however, agree that blood flowing into the windpipe, causing apnoea, is to be seriously apprehended. This hæmorrhage is most frequently venous, and is to be more especially considered in tracheotomy behind the thyroid isthmus, and in cases where the obstruction to respiration is very great and of long duration, causing intense venous congestion. The same danger does not obtain equally in higher cuts—dividing the cricoid cartilage and first tracheal ring (laryngo-tracheotomy).

From these histories, the legitimate conclusion is that a slow and careful dissection—tearing rather than cutting—pushing aside all important vessels and tissues, and securing perfect dryness of the wound before opening the trachea will prevent danger from hæmorrhage, and reduce the danger of blood entering the trachea.

The general use of anæsthesia in this country lessens the troubles of tracheotomy; the operation can be carefully and slowly performed. Dr. Cohen thinks that an anæsthetic should be used in early cases, where asphyxia is not imminent; when asphyxia exists, the patient is already unconscious, and hence insensible to pain. In Dr. Pilcher's 67 cases, when chloroform or ether was used, he found dangerous symptoms only twice. In Dr. Mastin's table of 863 cases, death was twice caused by chloroform.

That tracheotomy *per se* is not specially dangerous, may be shown by an examination of 116 other cases of tracheotomy for foreign bodies, etc., not mentioned in Dr. Mastin's statistics of 863 cases for croup. Of the nine deaths after these 116 operations, each death was due to other causes than the operation.

Other complications rendering the operation dangerous or difficult may be mentioned, such as cutting through the pos-

terior wall of the trachea; slipping the canula into the cellular tissue outside the windpipe in short, thick necks; pushing a dense false membrane before the point of the knife, etc. But these accidents are usually the result of carelessness, haste or fear, and should scarcely ever occur so as to seriously embarrass the operation. Danger from shock and also secondary hæmorrhage may complicate the most trivial operation.

In regard to the introduction of the canula, however, Dr. C. H. Mastin, of Mobile, Ala., in a troublesome case of diphtheritic croup, found the introduction much facilitated by first opening the cut in the trachea by a Frenkle's nasal speculum, and then sliding the tube between its blades. This speculum, when closed, is easily inserted into the wound—being flat and of small compass—and then can be quickly separated by a thumb-screw to allow the passage of the tracheal tube.

Seeing that merely opening the windpipe in itself seldom produces death, we naturally ask, *What is the cause of death in tracheotomy for diphtheritic and croupous laryngitis?* Without doubt, among the earlier operations, to a want of appreciation of the systemic condition of which the laryngeal inflammation was but an expression. Tracheotomy does not cure the affection, but is simply an auxiliary to other measures—to prevent death by suffocation, admit pure air for the proper aeration of the blood, and to gain time.

Of the 863 operations collected, Dr. Mastin has found the causes of death in 313, as follows:

Cardiac paralysis.....	2
Pneumonia.....	30
Pulmonary congestion.....	4
Extension of membrane, causing obstruction.....	103
Asthenia.....	51
Capillary bronchitis.....	46
Pulmonary oedema.....	1
Exhaustion	18
Accumulation below tube.....	4
Asphyxia	13
Suffocation on table	2
In articulo-mortis.....	6
Accidental displacement of canula.....	3
Scarlatina.....	2
Carbonic acid poison.....	7
Plugging of canula.....	4
Convulsions.....	3
Erysipelas.....	1
Miliary tubercle	1
Emphysema.....	2
Tracheal granulations.....	1
Anæsthetics.....	3

It will be proper to mention that of these, 2 deaths were due to chloroform, 1 to ether, 2 to plugging of the canula through the carelessness of the nurse; 9 were moribund at the time of the operation, 3 to outside causes not connected with the original disease or operation, 3 to accidental displacement of the canula through extreme carelessness, 1 to convulsions due to indigestible food, 2 to pneumonia caused by leaky roof and *unusually* bad hygienic surroundings, 2 to scarlatinal poison, and 1 to the choking of a very poor "home-made" tube.

The large preponderance of the extension of the pseudomembrane as a death cause, may be reasonably explained, by concluding that the morbid process has already extended beyond the larynx into the trachea before the knife was resorted to.

As to the *Stage* at which the operation offers the best chances of success, a number of surgeons positively assert that the operation should be regarded as a *dernier ressort*, and hence performed in the very last stage, when death from suffocation is impending. In confirmation of *late* operations Guersant, in 1835, advised that tracheotomy be resorted to when the disease was approaching its *last stage* (suffocation); and again in 1873, he expresses the same belief, viz.: that the dyspnœa shall be *permanent* and not intermitting. M. Bouchut recommends it when a state is reached tending to asphyxia, when a single *paroxysm* might cause death. Skey writes that, when the symptoms are *imminent* an artificial opening should be made. Syme believed that only *desperate* cases call for the operation. Velpeau said, tracheotomy is required when a mechanical obstruction, of whatever source, exists, which is *about producing suffocation*. Dr. J. Lewis Smith, of New York, in 1877, advocated tracheotomy when there was great lividity from the *embarrassment to breathing*, since it *rendered death more easy*. Wm. Squire proposes tracheotomy when *suffocation is threatened*.

The tendency, however, towards *early* operative interference is decidedly increasing; and in opposition to the opinions of the men just named, are the expressions of the majority of surgeons, especially those who have lately written on the subject. Steiner, in *Ziemssen's Cyclopædia*, writes, "As to the time when tracheotomy is to be performed, I agree with those writers who urge an early operation, and do not defer it until urgent symptoms of carbonic acid poisoning have manifested themselves." Prof. Saml. D. Gross, speaking of tracheotomy in diphtheria, says, "If it were done early in

this disease, the probability is that life would much more frequently be saved." West declared that "my chief anxiety is to make out the indications which may justify me in having more timely recourse to it in future." Hardy and Beheir say it is to be performed whenever the symptoms indicate extension of the false membrane. Ollivier *decidedly* favors early operations. Trousseau writes, "The chances of the success of the operation are so much the greater in proportion as it has been the earlier performed." Similar opinions are accorded to Bryant, Niemeyer, Roberts, Aitken, D. Hayes Agnew, John H. Packard and Pilcher.

But statistics speak in the loudest tones. Out of 863 tracheotomies I have succeeded in tabulating the dates at which 250 operations were performed after the onset of the disease. *Table showing Time of Operation after invasion of the Disease in 250 Cases.*

No. CASES.	PERIOD.	DEATHS.	CURES.
10	From 1 to 24 hours inclusive.....	7	3
45	" 24 to 48 hours inclusive	30	15
32	" 48 hours to 3rd day inclusive.. ..	22	10
25	" 3rd to 4th " "	18	7
24	" 4th to 5th " "	19	5
20	" 5th to 6th " "	13	7
13	" 6th to 7th " "	8	5
7	" 7th to 8th " "	6	1
12	" 8th to 10th " "	9	3
62	Very late.....	46	16

Referring to this table, it will be seen that the exact period of each operation is given up to the tenth day inclusive, and all those occurring after that date and those where the operation was executed in cases on the border of suffocation (the period not being known) are classed as occurring *late*. It will also be found that the largest number, by far, were operated upon *late*—when suffocation was threatening—having been performed 62 times in that stage. The next most frequent period was from 24 to 48 hours; then 48 hours to the 3rd day; then 4th to 5th day, and so on.

Steiner divides croup into three stages; the *first* stage begins, of course, with the early symptoms, and lasts from 24 to 36 hours, or from 2 to 5 days; the *second* stage commences when paroxysms of dyspnœa begin, and gradually increase in frequency until the *third* stage, or that of continuous dyspnœa, (when complete asphyxia is imminent) is reached. Following this division, we find that in the *first* stage, from 24 hours to

the 5th day, the ratio of successes was 1 in every $3\frac{2}{5}$ cases; and considering, in this table, the *second* stage to be from the fifth to the tenth day (since in but few instances was it noted that suffocation was here impending), we find the cures amounting to 1 in every $3\frac{1}{4}$ cases; in the *third* stage (put down in the table as *very late*) the recoveries were as 1 to every $3\frac{7}{8}$ operations.

This shows the most fortunate period to be that of the *second* stage (1 cure in every $3\frac{1}{4}$ cases); but by a little care it will be seen that in proportion to the number of operations done (1 to $2\frac{3}{8}$) the first stage and *early* beginning of the second was attended by the best results.

Again, in combining the first two stages and comparing them with the last stage, or that where the operation was proposed as a last resort, we find that in proportion* (3 to $1\frac{1}{3\frac{1}{2}}$) to the tracheotomies performed, the successful period is decidedly in favor of the *first two* stages.

This table by no means shows the correct successful period; for, in proportion to the number of operations performed, the number of cases at which the time of the operation was noted is comparatively small; and hence to come even near the ratio of cures the stage where the knife was used should be known in *every single case of the entire collection*. There is a sufficient number, however, to establish beyond a cavil the expediency of early operations; and as soon as it is broadly accepted that the mere incision, required in opening the wind-pipe, does not add to the dangers of the existing disease, then the operation will be resorted to at the moment the practitioner feels convinced that a pseudo-membrane is beginning to form, and the results will then give the true percentage of cures which are to be derived from the operation. At any rate, when tracheotomy is performed as frequently in the early stages of croup as it is now resorted to in the last, or stage of asphyxia, the successes will place the procedure among that class of operations which are considered *successful*.

A few have suggested that, if performed at an early period in the disease, tracheotomy might go further and have some claims to being a direct curative measure. The most emphatic among these is Steiner. This seems quite probable. No one will deny that one of the prime factors in the treat-

*The proportion here is considered in just the reverse of the usual designation of the term—the greater the number of operations performed being regarded as giving the best idea of the successful percentage—since in many operations where we know the percentage of cures is very small, many surgeons may have had but 2 or 3 operations and saved them all, thus giving 100 per cent. of successes.

ment of an inflammation is *rest*. The muscular apparatus of the larynx is, in a measure, kept in constant action by the process of normal respiration, and when an inflammation exists, and particularly when it becomes obstructive, greater action of the laryngeal muscles is produced by the efforts at breathing; and, by *a priori* reasoning, the morbid process is increased. The passage of a stream of air, too, over the inflamed membrane, may act as an irritant, and assist to keep up or increase the distress. Hence, opening the trachea at an early date—when the membrane is just forming and before the trachea is invaded—may, by giving *rest* to the larynx, limit the further spread of the croupous deposit.

It is generally believed that the most favorable *age* for the operation of tracheotomy in croup is between the years of three and five, the successes gradually decreasing after the seventh year. This may be partially accounted for in that croup is more frequent between the first named periods; and a greater number of operations being then necessarily performed, the contrast between that period and a later one is made more apparent. Among my cases it will be seen that the most successful period was between the ages of 7 and 8 years inclusive, being 7 cures in 12 cases. Then comes the period of from 6 to 7 years, where there were 13 operations and 5 cures. Then the period, generally regarded as the most favorable, between 3 and 5 years inclusive, in which there were 131 operations and 43 recoveries. From 2 years to 3 years inclusive, there were noted 59 operations with 15 successes. From birth to 2 years inclusive, there were 47 operations and 10 successful ones. Below 6 months there was one case, an infant of 4 months, which resulted in death; and from 6 months to 18 months inclusive, the ratio was 1 cure in $5\frac{1}{4}$ cases.

This last ratio should be compared with the proportion between the ages of 3 years and $3\frac{1}{2}$ years inclusive (which is as 1 to $5\frac{1}{2}$), since the operation is usually condemned before 2 years of age; and we here find that even between 6 months and 18 months, the proportion is better than at (the time which is considered the period of selection) 3 to $3\frac{1}{2}$ years. From 8 to 9 years, again, the proportion is comparatively good (directly opposed to most statistical reports, which show poor success after the 8th year) being 1 in $3\frac{1}{2}$, but the cases are so few that only very imperfect results can be obtained. From 9 to 10 years, 10 to 11 years, 11 to 12 years, and at 19 years, there were five, one, two, and one cases respectively, all of which were unsuccessful. At 14 years, however, there occurred two cases, both ending in perfect recovery.

It is the universally accepted belief, I think, that tracheotomy for croup is scarcely ever successful below two years of age, notwithstanding the many published successes below that period of life,* and as there are some few recoveries in the above table, I desire to call especial attention to this point.

Here Dr. Mastin gives a table (selected from his 863 collected cases) of 32 operations on children from 4 months to 22 months old, with 5 cures and 27 deaths, making a proportion of 1 cure to $6\frac{2}{3}$ cases.

But as *one* of these deaths was due to the carelessness of the nurse (allowing the tube to be plugged), *one* to choking of a "home-made" canula, and *one* to pneumonia from unusually bad hygienic surroundings, the proportion should be regarded as 5 cures to 29 cases. In either case, there are a sufficient number of recoveries to substantiate the opinions of those men who advocate the operation *at any age*.

Middle life and beyond that period have been also considered as offering very great objections to tracheotomy in croup. In the table there are *three* cases which were of *full* adult age, namely, one case of 52 years, female, which recovered; one at 35 years, male, also successful; and one at 40 years, male, which died. These cases, with those at 19 years and 14 years of age (shown in the table), go to prove that age presents no *contra-indications* to opening the trachea in croup.

As to the susceptibility of *sex* to croup, authorities are divided. Of 355 cases of the operation where the sex was recorded, 204 were males, and 151 females. Of the 204 males, there were 146 deaths and 58 recoveries; and out of the 151 females 112 died, and 39 were successful; thus giving to the male sex the greater proportion of successes.

Of the 863 tracheotomies collected, the *season* at which the operation was performed was determined in 336 instances, as spring 79; summer 40; fall 123; and winter 94. This preponderance of fall and winter over spring and summer would be looked for, since all experience has taught that in fall and winter is found the most fertile causes for the development of this disease, as well as all pulmonary disorders. But the proportion of successful issues, however, should be looked for in those seasons when croup is *less prevalent* and there are

* I have collected from various sources (several of which were taken from Cohen's *Tracheotomy in its Relation to Croup*) twenty-six cases of tracheotomy for croup, ranging from 6 weeks to 23 months, principally the operations of French surgeons, all of which were of a successful issue.

fewer pulmonary complications; and I have found that during the fall months the cures were as 1 to a little more than $4\frac{1}{2}$ cases; in the winter months, as 1 to not quite every 4 operations; in the spring months, 1 in every $4\frac{3}{4}$ cases; whereas in the summer, there was the best average, being 1 in not quite every 3 cases.

The method of operating in this collection was determined in 343 instances. Of these, 321 were *division* of the trachea by the usual vertical incision; and 22 were *excision*, where a piece of the trachea is excised (employed by Brainard and others). It is worthy of mention that out of eleven operations by Dr. H. Lenox Hodge, the *only two* successful ones were those in which the *excision* method was employed.

It is beyond question, however, that that operation which dispenses with the introduction of all instruments into the trachea, is, theoretically, the proper procedure; for, besides the trouble frequently produced by a long residence of the canula in the windpipe, the canula may at first be sufficiently irritating to produce a deposit of pseudo-membrane at the points where it impinges upon the mucous coat, and from these points a new spread of membrane may take place.

The *hygienic* surroundings were obtained in 290 cases, of which 184 *were good*, and 106 *bad*. In *many* instances the immediate cause of death was directly traceable to improper shelter, inadequate food, and lack of general attention.

As all diseases are more fatal usually in epidemic form, tracheotomy for croupous laryngitis in that form is attended with less success than when the cases occur singly.

In this collection of 863 tracheotomies, the proportion of deaths is unnecessarily increased by *forty* cases which should be excluded, since death in them was attended by such complications as make their exclusion warrantable, such as deaths by anæsthetics, moribund at operation, death from scarlatinal poison, etc. This makes the proportion as 178 cures to 823 operations, instead of 178 recoveries to 863 tracheotomies, which I regard as the correct average of success.

The annexed conclusions are deducible:

- (1.) Tracheotomy is *per se* almost devoid of danger.
- (2.) Fatal hæmorrhage should almost never occur; and care, with coolness, will nearly always prevent apnœa from intra-tracheal bleeding.
- (3.) Age offers no contra-indications, although the average of success is less in early infancy and adult life.
- (4.) Early operative interference—whenever the paroxysms of dyspnœa become at all lengthened—is demanded, since

delay only adds to the suffering of the patient, and materially lessens the chances of recovery.

(5.) The after-attention is of prime importance—careful attention of the wound, proper treatment of the disease, and proper nursing, with fair hygienic surroundings, being the essentials to a successful issue.

Book Notices, &c.

Practical Treatise on Nervous Exhaustion. By GEORGE M. BEARD, A. M., M. D., Member of the American Neurological Association, etc. New York: Wm. Wood & Co. 1880. 8vo. Pp. 198. (From Publishers.)

Dr. Beard's new book is a great addition to neurology. He has brought together facts oftentimes before remarked upon, but never before collected and systematized so as to make them valuable. He has here plainly shown that what is known the world over as "American Nervousness" is a disease of the nervous forces—that it is *nervous exhaustion*; and to express this condition he has selected a good term—*neurasthenia*. The profession of America is already somewhat acquainted with the descriptions given of the disease, because of the several able and striking journal articles that the author and others of eminence have recently contributed. But in the book before us we have a complete statement of all the facts already contributed to science, besides other important developments which are essential to a full appreciation of the importance of the subject. We look upon this book as marking out a real advance upon the old, too exclusive theory of "cerebral hyperæmia," in trying to account for, and relieve the inconveniences or dangerous symptoms of "American Nervousness." The author has done his part handsomely.

Sore Throat, its Nature, Varieties and Treatment, including the Connection between the Affections of the Throat and Other Diseases. By PROSSER JAMES, M. D., Physician to the Hospital for Diseases of the Throat and Chest, London, etc. Fourth Edition. Illustrated with Hand-Colored Plates. Philadelphia; Lindsay & Blakiston. 1880. 12mo. Pp. 318. Price, \$2.25. (For sale by Messrs. West, Johnston & Co., Richmond.)

This is a plainly-written, practical hand-book on the usual diseases of the throat, and will be found useful by every practitioner of medicine. Almost every conceivable patho-

logical condition of the throat receives consideration. The plans of treatment suggested are all good; and the methods of diagnoses advised commend themselves as sensible. It may be suggested that the author has not paid sufficient attention to the contributions of American physicians to the several subjects of which the book treats; but this is a general fault with many European publications; and the remark does not apply more particularly to this than to the majority of such publications. We have long thought that books translated or republished from foreign presses, should each have competent American editors, so as to correct errors of priority, and to add that which American practice has brought to light or demonstrated to be true. The well-drawn illustrations in the book before us are material helps to a correct understanding of the anatomy of the throat.

The Microscope and Microscopical Technology—A Text-Book for Physicians and Students. By HEINRICH FREY, Professor of Medicine in the University of Zurich. Translated and edited by GEORGE R. CUTTER, M. D. Second Edition. New York: Wm. Wood & Co. 1880. 8vo. Pp. 660.

We have rarely perused a work on any subject that has given us more entire satisfaction than Cutter's translation of Frey's deservedly popular work on the Microscope and its physiological applications. To the student entering upon the study of this important subject, we unhesitatingly recommend it. In it he will find all the necessary information in regard to the construction of the instrument, the various patterns of the most celebrated makers, and the latest improvements in its mechanism. Following this, the microscopic appearance of the various tissues and fluids of the body, profusely illustrated, are given in such a simple yet perfect manner, that the merest tyro will find it a sufficient guide in the study of histology. The time has past when any man can be considered an accomplished physician who is ignorant of the practical applications of the microscope in health and disease, and we feel that we cannot do more important service to the student than by recommending the present work to him as an excellent and sufficient guide. O. F. M.

American Health Primers. Edited by W. W. KEEN, M. D. 16mo. Philadelphia: Presley Blakiston. 1880. Price of each Primer, 50 cents. (For sale by Messrs. West, Johnston & Co., Richmond.)

We have before us three of the *Primers* which we have heretofore had occasion to commend to professional and popular favor.

The first of those now upon our table is *The Throat and the Voice*, (Pp. 159) by J. Solis Cohen, M. D., Lecturer on Diseases of the Throat and Chest in Jefferson Medical College, Philadelphia. Like all the author's writings, this *Primer* is clear and very practical—useful to singers, speakers, families. It has a good index.

The second is *Brain-Work and Over-Work* (Pp. 126) by H. C. Wood, M. D., Clinical Professor of Nervous Diseases in University of Pennsylvania, etc. Scarcely a more important subject in medicine could, at this time, be brought to the attention of both the doctors and the people. Dr. Wood has done his duty well.

The third is *Our Homes* (Pp. 149) by Henry Hartshorne, A. M., M. D., Formerly Professor of Hygiene in the University of Pennsylvania, etc. This book relates chiefly to the sanitary construction of residences, and gives many wholesome suggestions as to how houses should be kept. Every head of a family will be edified by reading this book.

Editorial.

Our Seventh Annual Volume begins with this issue. We have reason to hope for the same degree of success that has been our portion in the past. Indeed, we are entering into agreements by which we hope to very materially improve the journal. We are always anxious to receive the suggestions of our subscribers and journalistic friends. As evidences that we try to profit by them, it will be noticed that we replace the *Table of Contents* on the first cover page; and also we have declined the interleaving of advertisements between the reading-pages.

American Medical Association. The thirty-first annual session of this Association will convene in the city of New York, on Tuesday, June 1st, 1880, at 11 A. M.; but the hall in which the meetings will be held is not stated in Secretary's announcement. Each State, County, and District Medical Society entitled to representation, may send one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number; *provided*, the number of delegates for any particular State, territory, county, city, or town shall not exceed the ratio of one in ten of the resident physicians, who may have signed the Code of Ethics of the Association.

Secretaries of medical societies as above designated are

earnestly requested to forward, *at once*, lists of their delegates to the Permanent Secretary of the American Medical Association, Dr. W. B. Atkinson, 1400 Pine street, Philadelphia.

The Buffalo Lithia Springs Water is a natural water—not made in the laboratory of the chemist or pharmacist—that it is well at times to remind the profession of. Many instances have lately come to our notice where its beneficial influence in removing sympathetic albuminuria and uræmia—such as occur in pregnancy, or as a sequel of scarlatina, etc.—seem to be most positive. In numerous chronic affections of the kidneys or bladder, and in the widespread uric acid diathesis and similar conditions, its constant use is approved by leading practitioners all over the United States. One excellence about these waters is that, when properly used, if they do no good, they can do no harm—and that is far more than can be said regarding the great majority of alterative medicines in general use.

Seven Springs Iron and Alum Mass is a purely natural remedy, being simply the residue after evaporation of the water of the wonderful “Seven Mineral Springs,” in Washington county, Va. No two of these seven springs contain the same medicinal properties—although within less than a stone’s throw of each other. It contains 19 different natural ingredients. The mass has an alterative virtue—more especially in cases of chronic diseases of the glandular and mucous tissues; and it has even been used with great success in the treatment of chills and fevers. In atonic dyspepsia, it is of great service. But it is especially in congestive diseases of the womb and ovaries that its peculiar value is manifested.

Mr. Henry Fleetwood’s Machine for Preparing Plaster-of-Paris Bandages is really a most useful invention. It is a time and a labor-saving machine, while the bandages prepared by it have all the proper pliancy that can be given them by making them by the hand; generally the plaster is more evenly spread, and the rolls are more uniform and neater in appearance. A great advantage, as Mr. Fleetwood states in his circular, is “*cleanliness*, as no dust can arise from the operation [of bandage rolling], as the box is closed during the rolling of the bandage.” The price of the machine is only \$5, which the practitioner can easily make out of the first case requiring the plaster-of-Paris bandage—whether the case be one of fracture or Pott’s disease of the spine, or lateral curvature of the spine requiring such bandaging. This ma-

chine is equally useful in spreading flour, starch or dextrine bandages—simply powdering the article used before putting in the box.

Meetings of State Medical Societies.—The following State Medical Societies will hold their annual meetings during the month of May, 1880:

Kentucky State Medical Society, at Lexington, May 4th.

Kansas State Medical Society, at Leavenworth, May 11th.

North Carolina Medical Society, in Wilmington, May 11th.

Michigan State Medical Society, at Grand Rapids, May 12th.

Illinois State Medical Society, at Belleville, May 18th.

Indiana State Medical Society, May 1st.

Missouri State Medical Society, at Carthage, May 18th.

Pennsylvania State Medical Society, at Altoona, May 19th.

New Jersey State Medical Society, at Princeton, May 25th.

Dr. Benjamin Grigsby McPhail, Acting Assistant Surgeon United States Army, and Post Surgeon Fort Gibson, Indian Territory, died March 10th, 1880. A notice prepared by Prof. Christopher Tompkins is crowded out until May No.

Queries and Answers.

Pathological Specimens of Nervous Tissue Wanted in Exchange for Microscopical Opinions or Specimens.

Mr. Editor,—Will you allow me, through your columns, to make the following offer to your readers, which, I think, will be of mutual advantage to some of the latter and myself?

In exchange for portions of brain and spinal cord, supposed to be diseased, I will give the *result* of a careful and thorough microscopical examination, or, where it is preferred, mounted slides of the specimen sent.

I have spent a good deal of time in the study of the normal and pathological histology of the nervous system, not without result; but in order to make my researches more valuable, and add to the knowledge accumulated on this subject, it is necessary to obtain and study a large and diverse number of specimens. Co-operation, as above proposed, will, I hope, accomplish this result. Specimens must be as fresh as possible, cut into cubes about 1 centimetre square, labelled, immersed in 70 per cent. alcohol, tightly stopped, and sent by express to

RICHARD H. LEMMON, M. D.,
Evington Depot, Campbell county, Va.

VIRGINIA MEDICAL MONTHLY.

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Original Communications.

ART. I.—**Intra-Uterine Medication by Iodized Phenol.*** By
ROBERT BATTEY, M. D., Ex-President Medical Association of Georgia;
Honorary Fellow Medical Society of Virginia, etc., Rome, Ga.

Eight years ago, the writer was impressed with the opinion that the results obtained from intra-uterine medication by the argentic nitrate and other escharotic remedies, as was then the custom in America, were very unsatisfactory. In his own practice, it was a common observation that scanty menstruation of a permanent and intractable character followed upon the treatment, due probably to a cicatricial condition of the endometrium left behind. In not a few cases, stenosis of the os had to be remedied, and in some instances recurred time and again. In a few cases, entire occlusion of the os occurred, and retained menses had to be evacuated.

In casting about for eligible substitutes, the tincture of iodine and carbolic acid presented themselves, and were successively tried, both separately and in combination; but the results thus obtained were meagre and unsatisfactory. Theoretically, iodine appeared to offer decided advantages, not

*Read, by invitation, before the Section of Obstetric Medicine, British Medical Association, in Cork, August, 1879.

only as a local stimulant to the uterus, but in consequence of its ready absorption, as a local and general alterative also; but the officinal tincture proved too feeble in power to secure satisfactory results, and the stronger preparation of Prof. Churchill, of Dublin, was, to this writer, then unknown.

The thought of employing carbolic acid as a solvent for iodine suggested itself, and experiment developed a knowledge of the remarkable solubility of the latter in the liquified acid. At first, one drachm, then two, three and four drachms of the iodine were found to be soluble in an ounce of the acid.

The last, and strongest, solution proved to be decidedly escharotic in its action upon the tissues, and especially upon the heterologous growths of low vitality, and has been much used by the writer for attacking uterine cancer—more particularly to supplement the curette. The standard solution employed in intra-uterine medication consists of one part by weight of iodine dissolved in four parts of liquified carbolic acid. This combination the writer has seen fit to name *iodized phenol*.

Iodized phenol is believed to be simply a concentrated solution of iodine in carbolic acid, and not, in a proper sense, a chemical compound. It is black in color, of syrupy consistency, and possesses, in a marked degree, the pungent odor of iodine, which is rapidly given off when heated. For intra-uterine medication, the iodized phenol has been used by the writer, almost to the exclusion of other remedies, since its introduction into his practice. In February, 1877, it was brought to the notice of the profession of America through the columns of the *American Practitioner*, and is to-day very generally employed, but more especially in the Southern States. The recital of cases to illustrate its uses would be inconsistent with the brevity which should characterize the present writing, and hence it is proposed to present, in general terms, only the method of its application and the results obtained from its use.

At first it was employed in a state of more or less dilution with glycerine, but more recently it has been used only in its

full strength, and the energy of the application regulated by the quantity employed and the extent to which it is carried into the uterine cavity. The instrument employed in making the application may be one of the many forms of applicators, so-called, or any uterine probe or sound which will easily enter the canal. It is the habit of the writer to use a rather slender and elastic hard-rubber probe, made slightly tapering, and with a blunt, not bulbous, point. The elasticity of this probe allows it to yield readily to pressure, to change its course, to follow easily the canal of the cervix, and enter the uterine cavity proper, and this in spite even of a moderate flexion or version of the uterus. From the cotton factory is obtained cotton wool in the form of an untwisted rope, the fibres of the cotton being straightened out perfectly and lying parallel to each other. It is technically known to the cotton-spinners as *the lap*, and can be purchased of the best quality at our factories for 8d. to 10d. per pound. It is admirably adapted to general gynaecological purposes.

Mode of Application.—The writer selects six or eight of the elastic probes; he then breaks off from the lap of cotton four or five inches of its length, and with his fingers splits it into several fasciuli of such size as when wound upon the probes will enlarge them to a desired thickness. The end of a probe is moistened slightly, and the fasciculus of cotton wound spirally upon it. The cotton around the probe is now dipped into the iodized phenol, any redundancy allowed to drip away, and the probe passed into the uterus with a slow, spiral movement as it advances. At first, the probe is introduced but half an inch, the effect noted, and the probe advanced to the internal os, if deemed advisable, and then withdrawn. Here, upon a first treatment, the case rests, to note the tolerance of the uterus for the remedy. At subsequent treatments, the probe may be carried to the fundus, and the first probe is followed by a second, and even a third and fourth, if well borne. The remainder of the wrapped probes are employed for wiping off the cervix and vaginal wall, if any of the phenol should have touched these tissues. The energy of the application is regulated by the size of the wrapping, the depth to which the probe is passed, and by the number

of probes used. When a very decided impression is to be made, a backward turn is given to the probe in its withdrawal, so as to leave the saturated cotton in the uterus, there to remain twenty-four hours, and often until it is spontaneously expelled. The application is renewed every four or fourteen days, according to the energy of the treatment; in general, once in seven days is sufficient.

The writer has abandoned the use of sponge-tents in connection with the treatment set forth. When dilatation is required, he employs the cotton-wrapped probe, twisting it firmly into the canal by the spiral movement above indicated, and reversing the movement, the probe is withdrawn, and a soft cotton tent remains in the uterine canal. The dilating power of this is notably less than the sponge, but nearly equal to sea-tangle, and, it is believed, entirely safe.

What are the results?

1. A perfect removal of all cervical mucus, which is promptly coagulated, and comes away adhering closely to the cotton. The probes subsequently passed bring the remedy directly in contact with the diseased membrane.

2. Always comparative, and frequently entire freedom from pain. This is a marked feature of the method, and in striking contrast with former experience. Carbolic acid is a local anæsthetic, and so numbs sensibility as to make the energetic application of iodine for the most part devoid of pain.

3. The iodine is so rapidly absorbed by the uterus, that the patient remarks its metallic taste in the mouth and throat usually in five or ten minutes after the application.

4. Softening, and more or less dilatation of the os and cervix.

5. Temporary arrest of leucorrhœa.

6. Watery discharge, sometimes bloody.

7. Exfoliation of the superficial layer of the membrane, which comes away in shreds, and sometimes entire, resembling thin glove kid.

8. Abrasions of the os heal promptly.

9. Disappearance of indurations of the uterus.

10. Permanent arrest of leucorrhœa.

11. Villosities of the endometrium are removed without resort to the curette.

12. Sub-involution of the uterus disappears.

13. The menses become regular and healthy; menorrhagia and scanty menstruation, as well as dysmenorrhœa, are remedied.

14. Appetite and digestion improve, and this in many instances without the use of medicines.

15. So thoroughly is the system impregnated with iodine, alteratives by the stomach are not used.

16. The form of the cervix and os is often completely changed. A large, puffy cervix, with very patulous, slit-like os, becomes even virginal in type.

17. Stenosis has not followed the treatment in any case noted as yet.

18. Barrenness from nine to fourteen years duration has disappeared in several instances.

Remarks.—Rapid, and, at the same time, satisfactory, cure in chronic uterine ailments, such as are contemplated in this paper, are not attainable by any mode of treatment known to this writer. It is not proposed that rapid cures can be made by the method herein set forth. On the contrary, the long-standing and obstinate cases, such as usually fall into his hands, require many months for satisfactory cure.

ART. II.—**Typho-Malarial Fever—Remarks Based on an Endemic Fever of 1879 in the City of Petersburg and Vicinage.**
By JOHN HERBERT CLAIBORNE, M. D., M. A., Ex-President and Honorary Fellow Medical Society of Virginia, etc., Petersburg, Va.

During the summer, autumn and early winter of the past year (1879), there prevailed in this city and its vicinage a *fever*—peculiar in its typical phenomena, and different, in some of its phases, from any other fever which I have ever encountered here or elsewhere in a practice of more than twenty-five years. It was known generally by the physicians of this community as *Typho-Malarial Fever*—a name which first came into familiar use during the late war between the

States, and which was applied by the surgeons of both the Confederate and Federal armies to a hybrid fever of more or less gravity, that presented some of the features, as well of a malarial as of a typhoid character.

This fever was undoubtedly the result of the exposure of troops in camp in malarious districts, and of the depressing influences incident to war, amongst men taken immediately from home and from the peaceful pursuits of home life. It was known also as camp fever, and before Richmond, during the summer campaign of 1862, was sometimes called, especially by the Federal surgeons, "Chickahominy fever."

In the nomenclature adopted in the *Medical and Surgical History of the War of the Rebellion*, it is known as typho-malarial fever; and to the eminent compiler and publisher of those papers, we are, perhaps, indebted for its name, as we are for an earnest and patient study of its pathology.

The fever, however, of which we speak was decidedly different in some of its leading characteristics from that disease. Our fever was always distinctly intermittent or remittent in its inception, and was invariably either distinctly intermittent or markedly remittent. It was impossible, on this account, to resist the indication to exhibit quinine in the commencement of the attack, and for several days consecutively—during the periods of intermission and remission—and that, too, after repeated trials had proven the utter uselessness of that drug, as far as the prevention of a recurring paroxysm was concerned. But this agent had not, in any case which I saw, its ordinary antiperiodic effect. If pushed to cinchonism, it would, of course, slow the pulse and reduce the temperature; but the degree of cinchonism necessary to induce these results, desirable in themselves, was so great that it could not be maintained for a sufficient length of time to do any good, without causing other and unpleasant nervous symptoms, which marked the remedy as bad as the evil.

Again, this fever was characterized, in its beginning, by fewer signs of derangement of the secretions. There was a cleaner tongue, less thirst, less nausea, less anorexia, than was observable in the typho-malarial fever of 1862. There

was also less debility, fewer nervous symptoms, less pain, except in the cases in which the head symptoms predominated, and less delirium. This fever, too, was of more protracted duration—running on for six, eight and ten weeks. In the graver cases alone, the tongue became red and dry about the third week, and there was more rarely any disturbance about the bowels. Diarrhœa was the exception and not the rule. The bowels were either in a natural condition or disposed to be torpid. In one case—a youth of fourteen years of age, and the fifth case occurring in a family of seven persons—the constipation was annoying. About the third week of his sickness, with a dry, cracked tongue, sordes on the teeth, and low, muttering delirium—a condition of things lasting three weeks longer—his bowels never moved except in response to enemata.

But in this fever, not only was the typhoid symptom of diarrhœa wanting, but there was never the persistent gurgling in the right iliac fossa, as so usually, if not universally occurs in true typhoid fever; nor was there to be seen the rose-colored spots on the fourteenth day, so pathognomonic of genuine enteric fever. In several cases, I thought I recognized this mark, but I was never thoroughly satisfied of its genuineness.

And yet there was another symptom—not common in ordinary malarial fever—which was never wanting in this fever, which I wish to describe, viz.: Epistaxis. I cannot now recall a single case in which the nose did not bleed at some time, at some stage, of the disease—sometimes only a few drops; sometimes more; but there was always some epistaxis.

Another feature of the disease which would lead one to suppose it to be typhoid fever was, that it occurred almost exclusively amongst young people. In the number of patients noted in my own practice, there were only two above forty years of age, one between thirty and forty, and the remainder ranging from fourteen to twenty-three years.

There was also that limited or quasi infectiousness about the disease which is sometimes observable in typhoid fever. In two instances, the first case in the family occurred in young ladies who had been visiting in a locality where a sus-

picious fever of typhoid type was prevailing, and who had returned home sick. In one of these families, four cases, besides, occurred—all young people. In the other family, there was no other case. The first case—viz., the young lady who had returned home with fever—was isolated, and precautionary measures of a hygienic and disinfectant nature were adopted; and in every other family in which I met with the disease, and in which there were young people, more than one case occurred, except in one instance. In this instance, the patient was a young student who had been closely confined to his books. The disease assumed a very grave form from the beginning, though there was perfect intermission for two days; then followed acute and violent delirium—death occurring on the tenth day, from exhaustion. In almost every case there was the dullness of hearing, the tinnitus aurium, the russet flush of the cheek, and the abdominal tympanism which characterize typhoid fever.

In reference to the *pathological lesions* of the disease, we are, unfortunately, in the dark. A knowledge of these would doubtless dispel the mists which cover the subject. The presence or absence of a few abrasions of the mucous membrane of the intestinal tract in the region of the ilium would develop the nature of the fever—at least, in one aspect.

But custom does not sanction necropsy in this latitude. A physician here, undertaking to practise *post-mortem* investigations, would soon find his clientele limited to the dead. This prejudice exists amongst all classes of people. Within a few years past, I have known a regular and reputable practitioner of medicine arraigned, and his office invaded by municipal police with a search warrant on a charge preferred by a respectable citizen that private dissections were being conducted in said office. So much by way of apology for ignorance of pathological anatomy of the disease.

We can only judge of its *nature* by its *semeiology* and *history*. The most striking symptom which we noted, in every case, was the persistent and protracted *pyrexia*. The *fever*—in other words, the *heat*—continued, in cases even presenting every other sign of convalescence, and kept the practitioner ever uneasy. It is true that it varied in degree

during the twenty-four hours—being always less in the early morning. But the mercury invariably rose with the sun, and kept his company during the day—seldom registering at 1 or 2 o'clock P. M. less than 105 or 106. Its daily range was from 100 to 106. In one case—a young girl of 16 years—it registered 105 or 106 daily at 1 P. M. continuously for six weeks. In this case, it never fell as low as 100 at any time during her whole sickness—until convalescence was thoroughly established. Yet, with the exception of some subsultus, and of great thirst, there never was one other unfavorable symptom. She took her nourishment regularly and with relish every few hours during that whole time, and every function—except the menstrual, which was suspended—was regularly and normally performed. So common was this high temperature in many cases, and yet so favorable was their course and termination, that I began to doubt whether danger was really signalled by such heat as we had heretofore believed.

Another peculiarity of the disease was that the *pulse* did not rise, *pari passu*, with the fever. Its number of beats, it is true, would increase with the exacerbation of the fever, but not in the same proportion—seldom rising above 100 or 110 at highest.

The same remark might be made of the respiration. This was not as hurried as, from the general erethism of the whole system, might have been anticipated.

The same poison which generated the pyrexia must also have acted as an irritant to the inhibitory nerves—thus either slowing the heart directly, or indirectly preventing it from responding to the stimulus of the heat. It cannot be that the hot, seething blood itself oppressed the nervous mass, and thus bound and delayed the central organ of the circulation. In other diseases in which the temperature is as high, as in yellow fever, or, for instance, scarlet fever, the pulse keeps rate with the pyrexia, and registers from 120 to 140. Whatever the poison—whatever the *materies morbi* be—it must act otherwise than in the ordinary malarial fever of this section. This latter expends itself, as we all know, on the sympathetic or ganglionic system. This new malaria must

act as well on the cerebro-spinal system, crippling it in its functions.

And just here, possibly, lies the difficulty in the failure of quinine to exert its physiological office of antidote to the poison. Quinine is supposed to act on the sympathetic only, through the cerebro-spinal nerves; and if these latter be sick, of course the remedy fails of effect. Certain it is that the great antiperiodic most signally failed in a disease where periodicity was one of the most striking phenomena. Whatever the ferment was which put the fever mass in motion, quinine did not rob it of its vitality.

This is not the history of malarial fever. It is more nearly alike typhoid fever. It is also congener with typhoid fever in that we cannot cure it. Yet there are few diseases in which judicious treatment did more good, and injudicious treatment did more harm. When I saw a case, I recalled the words of Tissot, as quoted by Barras in introducing his *Traite sur des Gastralgies*, "On peut se montrer grande praticien sans ordonner des medisamens le meilleur remedi est souvent de n'en prescrire aucun."

Some further light is probably thrown upon the nature of the disease in this immediate locality from the following facts: During the past year (1879), there was, perhaps, a *smaller rainfall* just in this section of the country than for any other one year in the memory of the oldest inhabitant. It is doubted whether the ground was ever thoroughly wet from April, 1879, to January, 1880. A gentleman who had been observing the opening of a number of graves in the month of December, informed me that he had never seen the earth as dry—even in any summer month. There was, therefore, great sluggishness in the streams and runs of the vicinity—even where they were not totally dried up. For similar reason, the sewers and gutters of the city could not be flushed—viz., on account of the scarcity of water, and the necessity for economizing its use. There was, on this account, imperfect drainage both in the city and the surrounding country, and a great accumulation of garbage and other noxious stuff which is usually swept off by our rapidly flowing streams when flooded by storm water. Though situate

just at the head of tide-water, the land rises in the city and vicinity from 50 to 300 feet above the sea; and, *per* consequence, the streams—several of which pass through and around the city—have quite a fall, and, of course, a rapid current. This gives us excellent natural drainage, and in heavy rains we usually get a good washing out. During the protracted drouth of the last year, these natural advantages availed us nothing. But these accumulations from lack of drainage were not of a *vegetable* nature. On account of the want of moisture, the ordinary luxuriant vegetation of our alluvial soil was lacking, and there was but little *vegetable mould* or *decomposition*. The noisome products which had been left to seethe and ferment by the dried and drying streams were rather of an *animal origin*. The ordure of more than twenty thousand people, the refuse and offal of half-dozen *abattoirs*, the garbage from the kitchens and cook-shops and fish-stands—all contributed to the savoury mass left to ferment in our midst and about us.

Now—coincident with this condition of things—shall I say as a sequence—there appeared this new form of fever, partaking more of the nature of typhoid fever than of malarious fever, and yet not essentially either. In addition to these facts, it is notable that there was almost a total absence of the usual climatic remittent and intermittent fevers. Indeed, as far as my own practice is concerned, I can say that not one uncomplicated case of simple intermittent fever was brought to my notice during the summer or autumn of 1879! As is well known, intermittent fever, or, as it is popularly called, chills and fever, is the *beté noir* of this section of the State; and yet, as far as I observed, the black beast, for the first time to my knowledge, passed us by, even during the autumnal season. In its place came this new evil—typho-malarial fever, I suppose it must be called—originating, perhaps, in the infection begotten of undrained ditches, sewers and streams, and having implanted upon its nature the habit of periodicity, which our malarial fevers have been establishing in the systems of our people for so many years.

It is certainly true that for a goodly number of years past we have had very few cases of typhoid fever—only a sporadic

case now and then. I am sure that in a practice of twenty-five years in this community, I have never, before the last year, seen as many as twenty-five cases. Our fevers have heretofore been of a remittent or intermittent type—clearly malarial—and always obedient to the great antiperiodic—quinine—succumbing at once when promptly and judiciously attacked. I should regret to think that the former fever is to substitute the latter in our practice in Tidewater Virginia. Malarial fever, we can cure; typhoid fever, no man has ever cured. Our people will have to be educated anew—will have to be taught that quinine and blue pill are not sovereign remedies—that a fever may be managed without physic, and with eating and drinking.

Treatment.—In most of the cases which came under my care, after the mercurial laxative in the commencement of the case—say, two grains of calomel and one grain of ipecac—and the inevitable quinine which the remittent, and often the intermittent, character of the fever seemed imperatively to demand, I resorted to but little more active medication. The quinine, as I have before remarked, invariably disappointed me; the recurring paroxysm would walk over any barrier which you might make with any quantity of bark. The subsequent treatment was directed exclusively to symptoms. Constipation was met by an occasional blue pill—if the tongue was furred—followed in six hours by Rochelle salts. Or the Rochelle salts, with or without an equal quantity of Husband's magnesia, was given, if the tongue was clean and moist. If the tongue was dry, small doses of castor oil and spirits of turpentine were given in an emulsion of gum arabic until the desired effect was produced. Sometimes, when the tongue was bared of epithelium, and the mucous membrane of the mouth red and scalded, I gave ten grains of bismuth and ten of magnesiā, every four hours—adding very small doses of morphia—the twelfth of a grain—if diarrhœa supervened, which occasionally occurred under these circumstances. When a tonic was indicated, I found nothing better than the infusion cinchonæ flavæ, of the Dispensatory, substituting for the dilute sulphuric acid in its preparation the dilute muriatic acid—especially in cases

where there was hepatic derangement. This was given every six or eight hours. During convalescence, when this was tedious and unsatisfactory, I often gave from five to ten drops of the dilute nitric acid every six hours. When the nights were disturbed and sleepless, I gave small doses of morphia or Dover's powder or chloral—according to the nervous condition of the patient or his peculiar idiosyncrasy. A good night's rest was indispensable. Occasionally, a sinapism to the epigastrium or sponging the surface of the body with tepid water would induce sleep when opiates failed. To reduce the inordinate heat, when the thermometer registered 105° — 106° F., nothing, in my practice, acted so promptly or so favorably as cold sponging—if the nurse could be prevailed on to use the remedy persistently, and without intermission, for hours at a time. I am confident that I saved the life of a patient by sitting myself at her bedside all night and sponging her freely with ice water for six or eight hours. The temperature fell during the night six degrees, an acute delirium and sleeplessness of forty-eight hours subsided, and convalescence was established in the second week of the attack. Quinine in full doses, or the salicylate of soda, would diminish the temperature, and slow the pulse as well; but both of these remedies, and especially the latter, developed almost invariably unpleasant derangements of digestion, and, *per* consequence, oftentimes of the cerebro-spinal system; and with a clientele of dyspeptics (as most of our Southern people are) were unsafe and undesirable.

There was no specific medication which promised anything as far as curtailing the attack of the disease was concerned, and none in my experience worthy of comment. And yet the treatment could not be conducted upon the plan of masterly inactivity. The most prompt activity and the most fertile resources were often needed to meet the complications which would arise; and of these none were more distressing to the patient and more annoying to the doctor than restlessness, sleeplessness, delirium—and, in the latter stages of the disease, weakness.

As a diet, in the commencement of the attack nothing was better than milk, especially with the addition of an ounce or

two of lime water to the pint. The oil globules were thus possibly, to some extent, emulsified, and the fluid rendered more easily assimilable. Later in the course of the attack, beef tea, chicken water, etc., were relied on. As soon as the debility became marked, which was often within a week or ten days—or certainly as soon as any typhoid symptoms appeared—as indicated by redness and dryness of the tongue, subsultus tendinum and muttering in sleep, stimulants, wine, whiskey, milk punch, etc., were exhibited every few hours *pro re nata*, without regard to quantity, but according to effect. When under their use, the pulse steadied, the restlessness was less, and the delirium abated, they were administered with great regularity by day and by night. When careful and intelligent nursing could not be procured, it became necessary for the physician to see the patient as often as possible during the twenty-four hours for the purpose of regulating the use of stimulants.

The fatal cases all died from the head—wild delirium, acute mania, insomnia, which no remedy would overcome, convulsions, yet with recurring consciousness and without paralysis—showing no organic lesion of the brain. These were the symptoms which ushered in the end—usually during the third week.

ART. III.—**The Brain in Health and Disease.** By EDWARD C. MANN, M. D., Superintendent Sunnyside Retreat for Mental and Nervous Diseases, Inebriety and the Opium Habit. Fort Washington, New York City.

THE HISTOLOGY AND FUNCTIONS OF THE CEREBRUM.—The study of the histology and functions of the cerebrum—not alone of the several ganglionic centres, but also of the different layers of the great “hemispherical ganglia” formed by the convolutions of the cerebrum—has as yet been comparatively little prosecuted. It presents a wide field for investigation, experimental inquiry and discovery; and already, such investigators as Dr. Ferrier, Sir Charles Bell, Dr. Carpenter, and Dr. Brown-Séquard, have thrown great light upon the localization of brain function. We know very little, positively, of the different operations of psychological and intel-

lectual life, the phenomena of which have been but slightly noticed, and are open to discussion. Mental diseases depend upon a physical lesion of the central nervous system; and as there is a very close relation existing between the regular functional activity of a normal brain and the diverse functional manifestations in insanity, the study of the structure and functions of the successive ganglia which compose the brain is a matter of deep interest as well as necessity to students of psychology.

The white substance of the hemispheres consists of medullated nerve fibres of about 0.0026—0.0067 mm. in diameter; while at the surface of the larger ganglionic masses and towards the cortex, some non-medullated fibres are seen. The fibres of the white matter are separated from one another by bands of delicate connective tissue, fibrillated sustentacular matter, in which are situated, at intervals, round or oval nuclei, smooth in contour, and measuring 0.0093—0.0075 mm.

These fibres of the white matter may be divided very properly into two classes: 1st. Those having a radiating and converging direction or course; and 2d. Those uniting the two halves of the cerebrum and forming the corpus callosum, which is properly to be looked upon as a physiological as well as an anatomical commissure; and it is often found to be absent in congenital idiots. The cortex of the cerebrum, or grey matter of the convolutions, is divided into several layers or laminae, the number being variously estimated by different observers, among whom are Kölliker, Arndt, Meynert and Frey. The latter regards the cortex as divisible into six laminae. The general plan of structure of the grey matter of the cerebrum is primarily, a wide-meshed network of medullated fibres, in whose interstices ganglion cells are situated. We also find that very delicate network of very fine fibres met with in the grey matter of the spinal cord, first discovered by Deiters, which consist of very delicate fibrillae springing from the broad protoplasm processes of the ganglion cell. These fibrillae, Deiters regards as a system of secondary axis cylinders for the most delicate nerve fibres. Gerlach first described the network as occurring as well in the cortex of the cerebrum as in the spinal cord. The re-

mainder of the grey matter is made up of the delicate sustentacular substance before alluded to as intervening between the fibres of the white matter. In the superficial layers of the convolutions, the cells are small, multipolar nerve cells, analogous to the small cells in the posterior cornua of the cord; while in the deeper stratum or fourth layer of Frey, are found large multipolar ganglion cells 0.025—0.040 mm. in diameter, presenting oval or roundish nuclei. These large cells correspond to the large cells in the anterior cornua of the spinal cord, which, it will be remembered, send out "axis cylinder processes," which are prolonged into the nerve fibres of the motor roots. In like manner, we observe under the microscope an "axis cylinder process," given off from these multipolar ganglion cells of the deeper layers of the convolutions of the cerebrum, which process is prolonged into one of the nerve fibres of the corona radiata. It is, I think, demonstrable that there is a lateral anastomosis between the cells of each layer or laminae and also anastomoses between the successive layers of the convolutions.

I desire now to advance the theory respecting the functions of the hemispherical ganglia or cortex of the cerebrum, which has appeared to me during my microscopical investigations on brain tissue, to be the most reasonable one. We are already familiar, through the admirable physiological treatises of the present day, with the general description of the structure and functions of the nervous system, so that in speaking of the structure and functions of the grey matter of the hemispherical convolutions, I desire to be understood as referring to the histological elements, the functional activities of which we are, as yet, comparatively unacquainted with. Of course it is impossible to limit exactly the special attributes of any particular group of cells in the convolutions of the cerebrum; yet, by comparing them with the elements of the spinal cord, may it not be possible to make certain legitimate inductions relative to their diverse activities? I have just stated that the large nerve cells of the convolutions correspond to the multipolar ganglion cells of the anterior cornua of the spinal cord, which cornua are connected with the mo-

tor roots of the spinal nerves; while the small and superficial cells of the convolutions are analogous to the small cells of the posterior cornua of the cord, which are connected with the sensory roots of the spinal nerves. We have also seen that in the multipolar ganglion cells of the deeper layers of the convolutions of the cerebrum, there exist processes which become the axis cylinders of nerve fibres. I think, therefore, that we may fairly conclude *that the superficial layers or laminæ of the convolutions of the hemispheres, disseminate the impression of general sensibility, and that the deeper layers containing the larger multipolar ganglion cells originate motor impulses.*

The cerebral ganglia whose structure and functions remain to be considered are the corpora quadrigemina, thalami optici, and corpora striata.

The structure of the corpora quadrigemina consists of a white layer overlaid with a zonal stratum of nerve fibres. Underneath them the crura cerebelli and corpora quadrigemina pass on to reach the cerebrum, and should more properly be called, as Frey remarks, crura cerebelli ad cerebrum. Laterally, there enter the corpora quadrigemina from below, the two lemnisci arising from the motor tract of the medulla oblongata, and traceable back to the same tract or part of the medulla. In the anterior tract of the corpora quadrigemina, a root of the optic nerve, coming from the corpus geniculatum internum terminates. Small nerve cells are seen in the internal grey substance of the quadrigeminal bodies, with larger multipolar and fusiform ganglion corpuscles, the latter being said by Meynert to be found in the deeper layers of the anterior bodies about the aqueduct of Sylvius. The functions of these bodies are tolerably well understood, as they give rise to the optic nerves and act as the ganglia of sight, from which they have been also called "optic ganglia." Destruction of these bodies cause complete blindness. They thus serve as nervous centres for the perception of light, and a reflex action also takes place through them, by which the amount of light admitted to the eye is regulated to accommodate the sensibility of the pupil. The structure of the optic thalami, like the corpora quadrigemina, consists of a

white layer overlaid with a zone of nerve fibres. The posterior end of these ganglia has been termed the pulvinar.

Internally to it, and more posteriorly, is situated the corpus geniculatum internum; and, externally, the corpus geniculatum externum. Into the latter a portion of the optic tract passes on its way to the pulvinar. Fusiform cells are found, more deeply colored than those of the corpora quadrigemina. The cells of the corpus geniculatum externum are found to be frequently pigmented, and the internal geniculate body also contains fusiform cells.

The thalamus receives numerous white fasciculi coming from the hemispheres. They run towards the superior surface of the thalamus to the superior and internal border and the pulvinar, and are ultimately lost in the same manner as are the fibres continued from the crus cerebri into the corpus striatum; that is, by a sub-division into close plexuses of extremely delicate nerve fibres. The functions of the optic thalami are but little understood. They are not, however, principally connected with vision. From experimental observations which have been made, I think it most probable that the optic thalami receive, preserve and transform the sensorial impressions previous to their definitive irradiation to the cortical periphery.

It would seem to be proper to regard the optic thalami in four distinct parts or ganglion tracts. (a) The anterior ganglion tract is undoubtedly connected with olfactive impressions. (b) The middle ganglion tract receives the nerve fibres of the second pair, and may properly be called the optic tract. (c) The posterior ganglion tract, from its connection with the perception of sounds, may be called the acoustic tract. And there is undoubtedly (d) another tract of the optic thalamus, which, from its close relation to the sensitive fibres of the convergent system, may be called the tract of general sensibility.

The structure of the corpora striata consists of a collection of grey matter, nerve cells, and of fine nerve fibres. They contain two larger nuclei, respecting which we know very little. The system of nerve fibres is derived from the crura cerebri running parallel in a straight direction, entering both

nuclei, and ultimately lost in those nuclei. The surface of the corpora striata is grey, and in the grey matter we observe multipolar ganglion cells and smaller cells. The neuroglia is analogous to the neuroglia of the cortex of the cerebrum. There is also another set of fibres proceeding probably from the medullary substance of the hemispheres which ramify in the large nucleus of the corpus striatum. These fibres differ from those derived from the crus cerebri, which in this location are extremely attenuated, and present a plexiform arrangement. Physiologists have supposed the functions of the corpora striata to have some connection with sensation and volition, although they have not attempted to explain the nature of the connection. As experimental observations have proved that destruction of the corpus striatum results in motor paralysis, with the preservation of intelligence depending upon the extent of the lesion; and also as cases have occurred in which the functions of the corpus striatum having been, not destroyed, but impaired, by compression or degeneration of its elements, there have resulted disturbances in the motor sphere, may we not reasonably infer that the corpora striata are undoubtedly the centres of the reception, regulation and elaboration of voluntary motor impressions emanating from the deep layers of the cortical matter, whose large cells originate them?

There is no question more interesting to the follower of mental pathology, than that of the connection between nerve function and nerve organization, and it is only by patient experiment and observation that we are to fully understand the nature of the relation between the histology of the brain and the physical functions. It is impossible to fully appreciate the pathological changes met with in the brain, until we are in full possession of all the available knowledge of cerebral histology and of the knowledge of the normal functional activity of nerve cells; and we certainly cannot understand defective intellect unless we are thoroughly acquainted with the ordinary and normal manifestations of intellect. We must, therefore, clearly understand the physiological laws of healthy mental action before we can comprehend any departure from the healthy working of such laws. With this end

in view, have my efforts in the direction of the study of the physiology and pathology of the central nervous system been made.

It being a very difficult matter to harden the very delicate tissue of the brain, so as to be enabled to cut sufficiently thin sections for demonstrating the finer structural relation of the tissues, I give the formula which I use—and for which I am indebted to my friend, Prof. J. W. S. Arnold, of this city—for a hardening fluid for the brain and spinal cord, which, in its effects, surpasses any other hardening fluid, and better prepares the tissues for the reception of staining fluids. It is as follows:

Bi-chromate of ammonia.....	160 grs.
Methyl alcohol.....	105.
Distilled water.....	305.—Mix.

THE PATHOLOGY AND MORBID HISTOLOGY OF ACUTE AND CHRONIC INSANITY.—The morbid histological changes occurring in insanity, are, at the present day, undergoing microscopical investigation at the hands of many very skillful observers, both in our own country and in Europe; and these changes assume great importance when we reflect upon the fact that the pathological phenomena discovered in the brains of persons dying insane, all have for their basis, interference with the due nutrition, growth and renovation of the brain cell, which, by interrupting the nutrition, stimulation and repose of the brain, essential to mental health, results in the impress of a pathological state in the brain and disordered mental function. The investigation of both the normal and the morbid histology of the brain is a work requiring labor, patience and perseverance, and also judgment in the recording of observations; and even with the most careful and conscientious microscopists, mistakes may be made at times, as to the nature and value of appearances met with in histological research.

We may fairly divide the pathological changes met with in insanity into three classes.

First. Those which may be considered accidental.

Second. Those which are found in other diseases, and yet appear to be concerned in the production of insanity.

Third. Those essential to mental disease.

In the *first* class, we may enumerate cerebral hæmorrhages, softening of the white substance, and disease of the cerebral vessels.

In the *second* class, we meet with thickening and opacity of the arachnoid, hyperæmia of the pia mater and of the brain, serous infiltration of the pia mater and collections of fluid in the arachnoid cavity.

In the *third* class, or the changes essential to mental disease, I would enumerate sub-arachnoid ecchymosis and a partial punctiform injection of the cortical substance with or without softening; extended softening of the middle portion of the cortical substance; adherence of the pia mater to the surface of the brain; different discolorations of the cortical substance; loss of color of the cortical substance; atrophy of the convolutions; and lastly, induration of cerebral tissue. The naked eye appearances which may be met with in the bodies of those dying insane, are, chiefly, peculiarities in the form of the cranium, of which the most frequent is want of symmetry between the two sides; the shrunken and shrivelled ear in chronic insanity, consequent upon hæmatoma auris; variations from the normal standard in the thickness or thinness of the cranium, changes in the membranes as to appearance and structure; and finally, changes in the cerebral substance itself.

In *acute insanity*, the changes or prominent alterations in the brain met with by the writer have been—hyperæmic conditions of the brain and its membranes, which latter are often thickened and opaque; injection and softening of the cortical substance, and pigmentation of the cortical grey substance. While the dura mater is very rarely thickened, its vessels are found to be dilated and irregular, and the coats of the vessels much hypertrophied. The arachnoid I have found to be thickened, to be the seat of hæmorrhage, and have often found it covered with fine granulations on its surface. The blood-vessels of the brain I have found to present thickening of the coats, thickening of the sheath or hyaline membrane, deposits between the adventitia and sheath, and proliferation of nuclei. The neuroglia has been found to be the seat of various lesions in insanity, the principal of which are

disseminated sclerosis and colloid degeneration. The cerebral cells I have found to be the seat of atrophy, pigmentary or granular degeneration, calcification and hypertrophy. Microscopical examination of the spinal cord in the insane has revealed, as a rule, very little.

The pathology of general paralysis, which is one of the most interesting forms of mental disorder, is very obscure and invites especial attention at the hands of the profession. I think that some of the principal changes occurring in paresis have their origin in a congestion originating in the ganglia of the sympathetic, transmitted along the spinal cord, ultimately involving every tissue within the cranium, and eventuating simultaneously in the degeneration of blood-vessels, cells and nerve tubes, and in the mental and motor perversions which in so marked a manner distinguish general paralysis from all other diseases of the same class. The fundamental lesion of general paralysis is, I think, a general diffused interstitial encephalitis, which involves accessory structural changes of different character. The posterior columns of the cord are also not unfrequently affected. The primary and most palpable form of the interstitial degeneration is colloid, where the transformed matter is presented under the aspect of a hyaline substance, semi-transparent, slightly refractory, and at certain points of a bluish tint. When existing in isolated masses of small size, it preserves the form and aspect of whatever cerebral elements it may have invaded. This product of inflammation does not appear to be at all of a tubercular nature; neither is it fatty, being insoluble in ether or chloroform. It is not amyloid, because it is unaffected by tincture of iodine, solution of potash and soda, and is dissolved in strong acetic acid. It is not organic, as there is no reaction with hydrochloric acid. Its solubility in hot water, especially when potash or soda is added, would seem to indicate a peculiar chemical composition.

When we examine the cerebrum as the principal seat of paresis, we find the ependyma of the ventricles to be the centre, or perhaps one of many centres, of that destructive process which is indicated by the symptoms of general paralysis,

which affects all parts of the encephalon, and produces those secondary pathological appearances which have previously been identified as the cause of the disorders of motility and sensibility which follow. The progress of the morbid degeneration from the point where the ventricles have become dilated, their ependyma thickened; where their surface, especially in the fourth ventricle, is covered with granulations, is probably upward along the connective tissue, involving all tissues as well, and is gradual and insidious, and can be traced only by means of the more advanced alterations in structure. This interstitial irritation, however, disseminated, is propagated by nuclear proliferation, and invades the white matter in common with the cortical substance, and also the capillaries, which are thickened, tortuous and massed together. The cells of the cortical portion are sometimes found infiltrated with granulations, but retaining their form. This is found in the third stage of the disease. It is in the middle and inferior portions of the grey matter that the cells are observed to have brilliant nuclei tending towards colloid, while their normal aspect is preserved. The walls of the cell nearest the lesion are transformed into a shining, refractory hyaline substance, the colloid infiltration having been propagated to both.

The microscopic, as well as the naked eye appearance, may arise first in the brain, or they may appear first in the cord and medulla, and afterwards in the brain; and they may also show themselves simultaneously. If the brain be primarily attacked, the psychical signs predominate, or are exclusively manifested. If the medulla be the primary seat of the disease, muscular pain, tremor and ataxic symptoms, spreading gradually to the lips and tongue, and disturbance of the internal viscera corresponding to the portion of the spinal column involved precede alienation and increase the difficulty of diagnosis. Finally, when the whole cerebro-spinal axis participates at once in the colloid degeneration, the characteristic indications of paresis will appear simultaneously or in rapid succession. It is important to bear in mind that the colloid degeneration is sometimes absent, and that we may occasionally meet with it in brain disease, which is only remotely connected with paresis.

In chronic insanity, the changes chiefly met with in the brain, have been atrophy of the convolutions and brain itself, induration of both white and grey matter, thickening and opacity of the membranes, chronic hydrocephalus, effusions into the sub-arachnoid space, pigmentation of the cortical substance, and extended and profound sclerosis of the brain. The pia mater is found to be thickened and adhesive to the brain, and its vessels tortuous and thickened in their walls. I have also noticed atheromatous and fatty degeneration of the walls of the cerebral capillaries.

Having devoted considerable time to the microscopic investigation of both the normal and morbid histology of the brain, I desire to call particular attention to an appearance which I have noticed in the brains of those dying insane, and to which my attention has been drawn from the interest it assumes when viewed in the light of the probable ultimate cause of the nutritive defect which results in chronic insanity. We know, that for the proper nutrition and healthy functional activity of the brain-cell, the proper nutrient supply is required, and that we cannot have healthy mental function without a due supply of healthy blood to normal and healthy brain substance. We also know, if any agent operates in the influencing of the circulation unfavorably, so that a morbid condition of the cerebral capillaries be induced, that we shall inevitably have resulting, morbid changes, set up and maintained in the cerebral cells.

In previous writings on mental disorders, I have called attention to the fact that a microscopical examination of blood from insane patients as compared with an examination of blood from the same number of healthy persons, revealed in the blood of the insane a marked increase in the number of white blood corpuscles. In making microscopical examinations of brain tissue from chronic insanity, I have noticed repeatedly in different cases that have been presented to me for examination, lymphoid cells or white corpuscles, and also red corpuscles in small numbers in the membranes and in the substance of the brain itself, evidently having emigrated from the blood-vessels. From what I have observed, I think, that under conditions of inflammatory irritation of the brain,

an emigration of lymphoid cells takes place on a large scale—the cells or corpuscles, by virtue of their vital contractility, passing through the walls of the vessels and penetrating into the brain tissue. It will be remembered that both Dr. Bastian and Dr. Blandford have noticed a plugging up of the blood-vessels by small embolic masses composed of aggregations of white corpuscles in insanity. Ecker found that the vessels of the grey matter were more generally dilated in insanity, and Ramier also noticed the same thing in the vessels of the pia mater, while Dr. Major has described a dilatation of the arteries in “brain wasting”—a condition which appertains to chronic insanity.

We have here, two factors which operate, I think, in the production of the appearance in the pia mater and the brain, of the lymphoid cells, and in some cases of the red corpuscles—first, the undue predominance and accumulation in the blood-vessels of the white corpuscles, which obstruct the capillaries, giving us as a result, an impeded circulation and an increased pressure in the coats of the vessels; and second, the dilatation of the vessels before alluded to. These two conditions are favorable to the rapid emigration of the white and also the red corpuscles through the walls of the vessels; and also, perhaps, the same condition may be produced at times by the obstruction in the capillary vessels becoming great enough to rupture them. Such lymphoid cells must act undoubtedly as foreign bodies, and a slow course of inflammation is set up. Such an inflammatory process must necessarily be of slight intensity and long duration, and these collections of lymphoid cells undoubtedly tend to become developed into a fibroid structure, resulting in the induration of the brain which we meet with in chronic insanity.

I am also forcibly impressed with the idea that we have here the solution of the problem as to the relation which exists between tuberculosis and insanity. Dr. Clonston, in the *Journal of Mental Sciences*, for April, 1863, showed, that of 828 patients who died with tubercular disease at the Royal Edinburgh Asylum, 153 passed rapidly into the state of chronic insanity, the acute stage being of very short duration, the patients all manifesting a decided tendency towards

chronicity. He also noticed that the prognosis relating to mental recovery was eminently unfavorable, and that apparent recoveries proved to be only remissions. In these cases where the development of the two diseases seemed to Dr. Clonston to be nearly contemporaneous, was not the tuberculosis the result primarily of the escape or emigration of the lymphoid cells into the connective tissue of the lungs, owing to this state of leucocythæmia in the patient? I think that this condition occurs more frequently than we are aware of, especially in persons who inherit the predisposing neurotic element or morbid force. That there exists such an hereditary neurotic or morbid element or force, present in both insanity and phthisis, I most firmly believe; and I also believe that there is a correllation of morbid force which renders these diseases mutually convertible. I have repeatedly seen this borne out by undeniable facts, children of one family being affected with both insanity and phthisis in many different instances.

To return, however, more immediately to our subject. Respecting the dilatation of the vessels, which I before alluded to, it appears to me that the general obstruction in the capillaries of the brain, causes, primarily, probably, a compensatory hyperæmia; and as this gradually becomes permanent, the small arteries would naturally become enlarged, as they have been found to be by Ecker and Dr. Major, and also myself, and their walls would become thickened, as we find them to be *post-mortem* in chronic insanity. Such long-continued mechanical hyperæmia causes an impairment of vitality and function, and this we find exemplified by the retrogressive changes which occur in the substance of the brain in chronic insanity—viz., atrophy, induration and degeneration of the nervous elements of the brain. With the exception of cases of apoplexy, in which large clots have been discovered *post-mortem*, I am not aware that any observer has described any such lymphoid deposit in the brain, which may or may not have undergone fibroid metamorphosis or degeneration. I think, therefore, that from both a physiological and pathological standpoint, these observations become of the highest clinical significance.

I desire not to be misapprehended as regarding the presence of the lymphoid deposits in the brain as the ultimate cause of insanity. I do, however, think, that by their presence we are enabled to explain many of the changes incident upon chronic insanity, and think their presence must affect very materially the ultimate molecular changes in the brain upon which its functional activity depends, and regard it as a very strong probability that such foreign deposits in the brain may, by interfering with the molecular changes just alluded to, destroy both functional excitability and activity. It would appear very probable that the prominent alterations taking place in chronic insanity—viz., atrophy of the convolutions and of the brain itself, and induration of the two substances, with degeneration and atrophy of nerve cells—may be considered fairly to depend upon this abnormal state in the mutual relationship between the blood and the tissues, which becomes the ultimate cause of the nutritive defect which results in chronic insanity.

ART. IV.—**The Active and Passive Inhalation of the Nascent Chloride of Ammonium in Acute Affections of the Respiratory Tract—Influenza; Rhizopod Colds; Typhoid Pneumonia; Bronchitis, especially Capillary, etc.** By EPHRAIM CUTTER, M. D., Boston, Mass.

When the vapors of ammonia and muriatic acid are brought together, immediately at the points of contact a dense cloud is formed that has the macroscopic properties of smoke. Under the microscope of 400 diameters, I find that this cloud is made up of feathery crystals that resemble the lighter crystals of snow, and, from their many surfaces, appear white like snow, milk or fine sand. Four needles cross each other at their centres at angles of 45 degrees; so that this smoke is made up of an immense number of minute microscopic crystals that freely float in the air in all directions. This physical property is something wonderful. We are not amazed at the formation and floating in the air of snow crystals, as the atmosphere holds watery vapor in solution; nor are we surprised at the formation of the crystals from the ammonia and muriatic acid vapors; but that crys-

tals of the specific gravity of 1.45 should not at once settle to the ground instead of diffusing themselves as the incomplete products of combustion, we call smoke, is in my mind worthy of remark.

Now, though the chloride of ammonium (*alias*, sal ammoniac) is mentioned in all pharmacopœias, and in Sanscrit still save among the Germans, and latterly among ourselves, no advantage has been taken of this property of aerial diffusion so as to administer it by inhalation. No mention is made of this use in Wood and Bache. But the Germans, Kirkwood and some unprofessional people in this country, have given it in chronic affections of the air passages. It is easy to see that the crystals inhaled will impinge in substance on the mucous membrane of the respiratory tract, and serve as if it had been made a topical application; and this, too, in the mildest mode of direct application, having no medium or vehicle of communication save the atmospheric air.

What is meant by "nascent?" This signifies "born," or, as new birth is the beginning of new existence, the Germans have applied the term to the newly-formed chloride of ammonium. They seem to think that there is an especial advantage in having the salt as fresh as possible, as, if it is used just as it is formed, its therapeutical power is greater. Be this as it may, the salt does not long remain in the air, but settles down or is blown off, or diffused in the air. The chemical union is expressed by a simple formula. NH_4O signifies ammonium; HCl signifies muriatic acid; NH_4Cl signifies chloride of ammonium; HO signifies water. ($\text{NH}_4\text{O} + \text{HCl} = \text{NH}_4\text{Cl} + \text{HO}$.)

What is meant by active and passive inhalation? *Active* is where the patient draws in the nascent chloride, as a smoker uses a pipe or a cigar. *Passive* is where the apartment is filled with the crystals, and the patient inhales as a non-smoker does in a car full of smokers; or the crystals may be blown into the face of the patient. The passive use is indicated when patients are unable or refuse to actively inhale—as in cases of very sick people, children and infants. This feature of passive inhalation, and the use of the nascent chloride in acute affections, characterize this contribution to the

therapeutics, the nomenclature and the apparatus of this subject.



Apparatus of the writer.—Figure 1 is for active inhalation. It consists of (a) a wide-mouthed glass bottle of eight ounces capacity or more (a glass pickle jar or horse radish bottle will answer); (b) a tight-fitting cork, bored with two holes at least one-quarter inch in diameter.; (c) a glass tube to correspond with each of the holes, six inches long, bent near one end, at an angle of 70 degrees. The short arm is inserted into the cork; (d) in the other hole of the cork a straight glass tube is inserted, one end of which runs to near the bottom of the bottle, and the other end is expanded into a bulb, in which is placed (e) a small sponge loosely. These five things complete the apparatus for active inhalation, furnished by Messrs. Codman & Shurtleff, Boston, for 75 cents by mail or express.

Fig. 2 is furnished by Mr. W. W. Hill, apothecary, Woburn, Massachusetts, for 50 cents. This is an improvement on Fig. 1, as it does away with the straight bulbed glass tube. Instead it is furnished with a hard rubber hair-pin inserted in the under side of the cork. On its loop a sponge is impaled. There is only one tube to project, and also it can be used actively or passively without change.

Figure 3 shows Figure 1 arranged for passive inhalation. The bulb and sponge are reversed.



For Use—Fig. 1.—Put one teaspoonful, more or less, of muriatic acid in the bottle. With a pin, remove the sponge from the bulb; moisten the sponge with water; squeeze dry; moisten with ammonia (hartshorn); insert cork in bottle; blow through the bent

tube. Immediately the cloud of the nascent crystals will rise; then inhale. If properly mixed, it will taste sweetish and saltish; but if tasting too much of the acid, add more ammonia; if too strong with ammonia, add more acid, or shake up the acid in the bottle.

To use Fig. 2, put the acid in the bottle. Treat the sponge as described; replace cork; then blow out till the chamber of the bottle is hoar with crystals; then inhale, for active inhalation, or exhale for passive.

To use Fig. 3, add the acid and ammonia as described. Then blow through and send the cloud of smoke into the patient's face, or fill the apartment.

Remarks.—Though these arrangements are simple, they have cost thought, and it has been somewhat troublesome for the gentlemen alluded to to furnish them. Men who like to give credit should discourage attempts to call imitations by my name. I have seen pessaries called mine which I could not recognize. Still my name has to bear the opprobria of bastard instruments. In this way, the opposition to protection of inventors reacts to sour the feelings of those who devise. Moreover, the profession is not protected against imposition.

To those who are so situated as to desire to make their own instruments, I may say that useful ones have been made by me from empty pickle jars of two quarts capacity—boring holes through the cork with rat-tailed files, cutting out a V shaped segment from the cork at its periphery; take a hair-pin, impale the sponge on the loop and under the cork, bending a glass tube over a flame, or using a small lead tube (one may be made by rolling up a sheet of lead on a cylinder like a common lead pencil). Often I have used a common gin-net screw to make the holes in the cork—burying the screw in the cork, then forcibly withdraw it, and repeat till the hole is made; then, using the threads of the screw as a rasp, enlarge the hole to a proper size. In lieu of a sponge, a piece of common cotton cloth impaled on the hair-pin has answered well.

There are many nascent chloride apparatuses in the market, but they are all for active inhalation as far as I have

seen. Moreover, the tubes are too small. I have thought that they should be larger than tracheotomy tubes for viability and to avoid friction; also, the expense is too great in my opinion. While I am not prepared to say that my own apparatus is the best, I can testify that it has worked to my satisfaction, especially when the patients were too weak to inhale through a tube, or could not swallow their medicines, or where they were sensitive children or helpless babes. (See *Boston Journal of Chemistry*, February, 1874.)

EXAMPLES OF USE—*Rhizopod Colds*.—Some readers may recall allusions that I have made in this journal to cases of this kind. It is astonishing how prompt the relief is sometimes:—for example, in croupal symptoms associated with rhizopods.

In *December*, 1879, my son, aged $4\frac{1}{2}$ years old, contracted the rhizopod cold. The family had had it previously. I found the living forms of the asthmatos in the nasal excretions. In the day time, he would be comparatively well, and at night on going to bed, though a little restless, slept well. But after the family had retired and got quietly settled down into primary sleep, we were soon roused by the typical croupal cough that has so often alarmed parents and startled physicians. From laryngoscopical examination, I am satisfied that the physical cause of the brassy clangor in the cases explored was from the thickened reddened infiltration of the soft areolar submucous tissue about the false vocal cords. In the present case, I could not get a view of the larynx proper any farther than the epiglottis, but inferred from the contagious nature of the cold—from the live rhizopods found—that the irritation caused an inflamed condition of the peripheral part of the larynx so that he could produce at will cough clangor. Anyhow, the passive inhalation of the nascent chloride was followed by the immediate arrest of the cough and continuous sleep through the rest of the night. My wife insists that this change of treatment (for which we thank Dr. Salisbury) is a great improvement upon our former methods; inasmuch as formerly, with like symptoms, a sickness of several days' duration was sure to ensue—to say nothing of the mental wear and tear occasioned by witnessing and expecting dyspnoea of one's own children. In the morning, on examining the nasal excretions, forms of the rhizopods were found, but they were all dead.

Remarks.—A few pinches of powdered sulphur burnt in the apartment will relieve just as quickly as the nascent chloride. Moreover, those physicians who are not familiar with the use of the microscope, may, I think, diagnosticate, the influenzas depending on the rhizopods by the results of inhaling these remedies, according to my own observations. The same is true of the asthma caused by these parasites. I have seen whooping cough also caused by them.

Typhoid Pneumonia is a very dangerous disease in my experience. The first use of the nascent chloride in this disease, as far as I know, was in the case of a strong Irish-American farm-hand, 22 years old, who in a midwinter of protracted and low temperature, went off one evening and got drunk. Instead of seeking his bed, on his return, he turned in on some hay mown in the barn. The atmospheric temperature was, on an average, 15 degrees below zero. Thus he contracted a severe cold that resulted in typhoid pneumonia—that is, inflammation of the lungs with typhoid symptoms. When I saw him, he was in a third-story chamber in the farm-house, too sick to move; water in a tumbler near the bed was frozen one-half inch thick, and there was no means of making a fire. Fever somewhat high; pulse quick and weak; copious glairy, rusty sputa; physical signs of hepatization of the right lung, lower lobe. Ordinary treatment was administered. Soon his throat became so sore that he could not swallow. He even had muttering delirium at times. Respiration difficult and quick. He took but little notice of anything. His lungs were filled with secretions. Sweating copiously; weakness. Sputa darker in color. Urine high colored; some diarrhoea. Here was a peculiar situation—no medication possible by the stomach. So I was forced to resort to inhalation, as it was the only possible method of interference. A nascent chloride of ammonium apparatus was extemporized. The man was roused, and fortunately made to understand what he was to do. He actively inhaled *ad libitum*. Never did anything seem to work so well. There was an immediate improvement in every respect. Fortunately, a thaw came on. He was successfully moved into better quarters. His recovery was prompt and complete. The nascent chloride was the chief medicine used after it was begun with.

Remarks.—Doubters are apt to meet such statements as these by doubting everything. While I am not prepared to

say that this man might not have gotten well without any treatment, still I do say that the nascent chloride of ammonium was thoroughly administered; and taking this case, with others like it, I base on this evidence the assertion that I think I have a right to say that he would have died without this relief; and it was a relief. The patient said so. He kept asking for the apparatus, and inhaled most of the time. Had he been too weak to inhale, the passive mode would have been adopted. Others have had like experiences.

Capillary Bronchitis.—Some ten years ago, a woman, 67 years old, had been sick with cough and cold for about six months. She had good medical attendance, but with no relief. The cough was persistent; sputa copious, white and glairy; both sides of chest clear on percussion; full of sonorous and sibilant crackling inspiratory and expiratory râles; loss of flesh and strength; blood showed no physical signs of phthisis or syphilis. Immediate relief followed the use of the nascent chloride of ammonium in this case. In one week's time the cough and râles had well nigh disappeared, and health was restored. She has had no return of the affection.

This is not a complaint that ordinarily gets well so quick; indeed, it is apt to baffle the most skillful following up. I have seen the nascent chloride give so much relief in these affections that I do not feel that I make a mistake when I attribute the relief to the means employed.

Aphonia from Syphilitic Infiltration of the whole Pharynx Cured by the Inhalation of the Nascent Chloride of Ammonium. Mr. S., a hale-looking, middle-aged gentleman, sent by Dr. Jarvis, of this city, some ten years ago, had aphonia with cough. It was chronic. He had resisted treatment. On a laryngoscopic examination, infiltration of the pharynx, larynx and trachea were found so that the peripheries of the organs were encroached upon, and the calibre seemed diminished one-third. The diseased conditions were so general that I could select no foci for topical treatment; indeed, too many organs were organically involved. The question came up as to the nature of this infiltration. This is a very troublesome one to laryngologists—to wit, Was it tuberculous or syphilitic? (We regard struma or scrofula as either syphilis or tubercle.) To settle this question, I resorted to the new Salisbury signs of syphilis and consumption, to wit: the morphology of the blood. The results were positive for syphilis,

to wit: copper-colored spores, spore masses, enlarged white corpuscles containing copper-colored spores, and copper-colored mycelial filaments. My treatment was based on this diagnostic sign without saying anything to the patient. He got iodide of potassium and biniodide of mercury, in full doses inside; animal food diet, only occasionally; topical applications of liquor ferri persulphatis and glycerine—equal parts applied by a sponge to the whole inside of the pharynx, and finally, most continuously the active inhalation of the nascent chloride of ammonium *ad libitum*. Suffice it to say, that under this treatment, in a few months he entirely recovered his voice and his calibre of the air passages, and he remains cured to-day. Before I had him long under treatment, he voluntarily admitted his having had syphilis.

Remarks.—Incidentally, this shows the great value of Salisbury's new physical sign of syphilis. I am very well aware that leading syphilographers have entirely ignored Dr. Salisbury's contribution on the detection of syphilis. Still, if this was the place, I would present the reasons why I say that I have never used any physical sign in diagnosis of any disease, for the past ten years, with more satisfaction and usefulness than this of the morphology of the blood in syphilis. (See the *American Journal of Dental Sciences* for October or November, 1879.)

Though a specialist, and trained to topical applications, still in this case I relied on the systemic treatment in preference to touching the larynx, save with the nascent chloride. Had I not known of the Salisbury new physical sign, I should not so soon have got at the truth, even if the patient had confessed at first, as I judged of the progress and history of the case more by the blood than by anything else. As he improved in the morphology of the blood, so the other symptoms cured up *pari passu*.

The Bronchitis of Children and Infants.—I wish to speak a word in behalf of these delicate subjects. All know how difficult it is to treat this class of cases, and that homœopathy has its supposed success in them, as it is so easy to give these patients medicine that tastes like sugar. But it seems to me that Hahnemann never ordered a medicine so easy to take as chloride of ammonium. The child cannot help inhaling, and often reaches out the arms for the inhaler, showing that the

inhalation must be pleasant, while, at the same time, we know that a common sense and appreciable influence must be exerted by the crystals. But putting this aside, I have seen cases where the favorable effects were marked and satisfactory.

The inhalation of the nascent chloride is one of the best modes to relieve or break up a cold. Generally, those who use the apparatus are glad to have it on hand for domestic use.

In conclusion, I hope that I have not given the impression that this remedy is "a cure all;" it is not. Still I think that its use should not be delegated to laymen, as I believe that, if the profession have the same experience with it in the acute affections named, that many lives will be saved, and some severe sicknesses will be mitigated and made pleasant.

27 Somerset street.

ART. V.—**Causes, Symptoms and Treatment of Hepatic Abscess**
—especially those Due to Brain Lesion. By ROBERT C. POWELL, M. D., One of the Vice-Presidents Medical Society of Virginia, etc., Alexandria, Va.

There was no subject before the last meeting of the Medical Society of Virginia that excited more interest than the case of hepatic abscess so well described by Dr. J. Marion Sims, and so skillfully treated by Dr. Hammond; but on that occasion our personal interest in the welfare of the patient so overwhelmed our professional interest in the disease, that we lost an opportunity for discussing a question full of interest and practical importance. The object of this paper is to call attention to some well-established facts connected with the causes, symptoms and treatment of these abscesses, and to give some historical account of the pathological opinions which have been expressed in regard to one particular class of them. Laying no claim to originality of thought, theory or facts, I will endeavor to act the part of those guides in "Rome, the Eternal," and "Florence, the beautiful," who, knowing but little of painting, sculpture or architecture, yet manage to point out the wondrous works of art which make those cities famous.

Hepatic abscesses may be conveniently divided into two classes—idiopathic and deuteropathic. In both classes, the symptoms are almost identical, and are frequently so obscure that it is impossible to form a positive and correct diagnosis; indeed, *post-mortem* examinations have revealed enormous abscesses of the liver where no such lesion was previously suspected.

But a careful examination will often detect, in the midst of more or less constitutional disturbance, some of the following *symptoms*: Pain in the right hypochondriac region; pain in the top of the right shoulder, augmented by pressure on the liver; and, according to the rules lately laid down by Vidal, there should be pain upon pressure over the right spinous process of the fourth dorsal vertebra. The pain arising from abscess of the liver is, to some extent, diagnostic of its size. Murchison, in his *Clinical Lectures on Diseases of the Liver*, asserts that acute pain is characteristic of small multiple abscesses, while a dull, heavy pain indicates a large single abscess. Another symptom, generally regarded as reliable, is rigidity of the right rectus abdominis muscle. Palpation and percussion show an increased area of hepatic dullness, which, in extreme cases, may reach up to the fourth rib, or extend downwards to the level of the umbilicus. Fluctuation is often difficult to detect, and when found must not be regarded as proof of an abscess until we are satisfied that it does not proceed from medullary cancer, or what is more probable, a distended gall-bladder. It is extremely difficult, by physical signs, to prove the existence of hepatic abscess until too late to profit by the discovery; but thanks to the ingenuity of Dieulafoy, we have, combined in one instrument, the most certain means of diagnosis, and the most hopeful means of cure. The aspirator not only proves the existence of the abscess, but, by the quantity and character of the pus it removes, tells us of the size and age of the abscess. Rokitsansky says that large abscesses of long standing contain pus mixed with a considerable quantity of bile. It is always discolored, generally greenish, and possesses a strong ammoniacal odor. Recent abscesses contain little or no bile.

Idiopathic abscesses of the liver, which are usually large

single ones, are common in tropical regions, and are generally associated with malarial fever; yet it is a singular fact that while such abscesses are common in India, they are rarely seen on the west coast of Africa, where such fatal malarial fevers are so prevalent. But hepatic abscesses of this class are not confined to the tropics; it is more than probable that many unrecognized cases have been seen in the southern portion of this country. Prof. Gross states that he saw nearly a dozen cases of hepatic abscess, all from Louisiana, in the Louisville Hospital, in less than two months. The cause of these idiopathic hepatic abscesses is generally supposed to be exposure to long-continued heat; but if heat alone can cause them, they should more frequently be found in bakers, firemen on steamers, employees in glass works, iron foundries, or any class of men whose daily occupation exposes them to the intense heat of large furnaces; yet there are no statistics which show that such persons are peculiarly liable to this affection. In his *Clinical Researches on Diseases in India*, Morehead remarks that "it is very probable that future research will show that the enfeebled and exhausted by continued heat, and its associated debilitating influences, are very prone to hepatitis, and that in such individuals the inflammation is frequently excited by exposure to external cold—I mean such a depression of temperature as suffices to influence bodies whose power of generating heat is low." This opinion is endorsed by Murchison; and as few men have had such opportunities for forming correct opinions on this subject, we may, for the present, accept them as satisfactory.

Deuteropathic, or *secondary hepatic abscesses*, formerly called "metastatic abscesses," and "purulent deposits," are of more interest to the physicians of this country than the former class of abscess, on account of their greater frequency, and the multiplicity of causes which produce them. As results of surgical operations, comminuted fractures of large bones, and gunshot wounds of the knee-joint, they are distressingly familiar to those engaged in surgical practice; they have followed in the wake of puerperal fever, and have been found as sequels to crural phlebitis; their association with dysen-

tery and intestinal ulceration has long been known. Their relation here as effect and cause has been discussed by many writers, and forms one of the most interesting articles in Woodward's magnificent work on the *Alvine Fluxes*. During the last two years, Surgeon-General Hammond, of New York, has called attention to many cases of hepatic abscess associated with cerebral hyperæmia. As nearly all these cases were from "malarious districts," it is safe to infer that the hyperæmia in these cases was due to paresis of the vasomotor nerves of the cerebral arteries, the paresis being caused by malarial poison; but excessive cerebral hyperæmia may pass into actual meningitis, and meningitis may result in supuration. These facts closely connect Dr. Hammond's cases with those to which I desire to call attention. I refer to deuteropathic or secondary hepatic abscesses arising from injuries to the brain, its meninges and the diploe of the skull.

From the time of Jeremiah, the prophet, who in great mental despondency complained that his "liver was poured upon the earth," down to the present sufferers from bilious headache, there has been a popular but vague idea of some intimate relation existing between the brain and the liver; and among the first results of pathological anatomy was the establishment of the fact that hepatic abscesses frequently occurred after injuries to the head. The discussion of this subject was commenced in the year 1757, by the publication of an *Essay on Abscesses of the Liver after Injuries to the Head*, by Ambroise Bertrandi, Chief Professor of Anatomy at Turin, and Surgeon to the King of Sardinia. In this essay, Bertrandi says: "Some authors have attributed these abscesses to sympathetic affection of the nerves, or to the metastasis of purulent matter. But if such abscesses depend upon the nerves, they should be equally frequent in other parts of the body supplied by the same nerves; and if they are due to the metastasis of purulent matter, they should never be found except after suppurative inflammation. But as they are found after injuries to the head, without suppuration, other causes must be sought." Bertrandi accounts for them in the following manner: Blows upon the head

produce cerebral hyperæmia. The quantity of blood in the brain being greatly increased, it rushes precipitously down the cerebral veins and large sinuses into the jugular veins, which are very short; thence, with considerable force, through the still shorter vena cava descendens, into the right auricle of the heart, with such momentum as to impede the entrance there of the blood brought by the vena cava ascendens. It thus blocks up, as it were, the blood in the hepatic veins, which open into the vena cava ascendens very near the right auricle; by this means there is produced a stasis of blood in the liver, followed by inflammation and abscess. In 1760, Ponteau, of Paris, published his *Melanges de Chirurgie*, in which he denied the correctness of Bertrandi's views, and argued that these abscesses resulted from an anæmic condition of the brain. In 1762, David, of Lyons, published his *Recherches sur le Maniere d'Agir de la Saignée*. Like Ponteau, he contradicted Bertrandi, and attributed these abscesses to cerebral anæmia. In 1761, there appeared in Venice a systematic treatise on pathological anatomy, entitled *De Sedibus et Causis Morborum*, by Jean Baptiste Morgagni, Professor of Anatomy at Padua. In this work, which contains so much reliable information on a variety of subjects, this question is discussed in Epistola 51, Art. 23. Morgagni writes: "You will find, for the most part, that the tubercles in the lungs or in the liver itself, were not all suppurated, and, indeed, many yet retained the firmness of a glandular body; suppose the patient had died, and there were some of these tubercles which had not reached the stage of suppuration? It is the belief of Mollinelli, as well as myself, that the pus carried from other parts of the body to the viscera is not always deposited as pus, but frequently, many of its particles being mixed with the blood, and entirely separated from each other, stick in the narrow passages of the lymphatic glands; and by obstructing or irritating them (as happens in the production of venereal buboes), and by retaining the humors therein, distend them, and give rise to the generation of a much more copious pus than what is carried there, which generation is indicated by chills and rigors. By this means we may conceive how much more pus is frequently

found in the viscera and cavities of the body than a small wound could have produced. The circulation of the blood sufficiently explains how, not only a few, but sometimes a great number of purulent particles are conveyed to other parts of the body from wounds of the head." Richerand says that abscess of the liver from wounds of the head are caused by the simultaneous shock to brain and liver. Desault, in his *Surgery*, edited by Bichat, says: "There exists an unknown but real relation between the brain and liver—a relation more intimate than between other organs; that by means of it, an affection of the first almost always occasions in the functions of the second an alteration in the dead body by the traces of engorgement, inflammation and abscess, and in the living by nausea, bilious vomiting, etc. This relation is not limited to the brain; its internal and external coverings receive its influence equally."

Gama, in his *Traite des Plaies de Tete et de l'Encephalite*, Paris, 1830, in the chapter on morbid cerebral sympathies, says "the liver experiences after concussion of the brain a state of stupor analogous to that which renders the intestinal canal immovable. When reaction of the brain takes place, it is followed by reaction of the liver, and this excitement often terminates in hepatitis, so commonly observed after blows on the head."

Blandin, *Annales de Therapeutique*, 1845, considers "inflammation of the veins of the diploe, followed by suppuration, to be the source of abscess of the liver so frequently found after injuries of the head."

Chelius asserts that "abscess of the liver more frequently appears after injuries of the head which suppurate than after concussion without wounds; they are frequently observed in affections of the brain which depend on internal causes—for instance, chronic inflammation of the meninges in so-called fungous growths of the dura mater," etc.

Arnott, in his article on Phlebitis, in the *Medico-Chirurgical Transactions*, Vol. XV, says that inflammations and abscesses which arise in remote portions of the body after injuries of the head, are attributable to suppurative inflammation of the veins in that part of the body primarily affected.

In Travers' and Cooper's *Surgical Essays*, Mr. Travers discusses this question, and draws a distinction between the cases where the inflammation of the veins terminates in the formation of pus, and where it terminates in the deposition of adhesive lymph. He observes: "There is a marked difference in the symptoms which accompany these states. The first is a protracted irritation producing hectic and ending in exhaustion; the second is a typhoid fever, which speedily produces delirium, terminating in a few days. The former cases are always dangerous, but are sometimes recoverable; the latter never so."

But neither time nor space will allow further quotations. It is easy enough to assign causes for these abscesses, but very difficult to show their mode of action—to explain *how* they produce such results. There is no question in surgery upon which so much has been said and so little made known as the formation of deuteropathic abscess. In many cases, our theories of the present day are as inapplicable as the views of Bertrandi, which are more than a hundred years old. Every theory explanatory of the subject, which did not die in infancy, has lived a precarious existence. The metastasis of pus has been proved impossible for mechanical reasons. Since this article was commenced, I have had the misfortune to see an abscess of the wrist after amputation of the thigh. It required less than twenty-four hours for its formation. It contained nearly half a pint of pus. By what possible means could this quantity of pus have been carried from the right thigh and deposited in the left wrist. The logic of Van Swieten, Petit and Morgagni is useless in a fact like this.

The absorption of pus, as advocated by Velpeau, Marechal and others, is a hypothesis contradicted by facts; for previous to the deposit of pus, at the site of the abscess, we find, first, the infiltration of blood, and afterwards infiltration of plastic material, representing two stages of inflammatory action.

The theory of phlebitis, as taught by Dance, Cruveilhier and Berand, had numerous adherents until Tessier proved that the inflamed veins contained clots of blood above the

point of suppuration, which made them impervious to pus. The sympathetic influence of the nerves is still liable to the objections urged against it by Bertrandi. Thrombosis and embolism may serve to explain some few cases of hepatic abscess, but offer no solution in a majority of such lesions.

Our last resort for satisfaction is to the theory of septicæmia or putrefaction of the blood. This name is less objectionable than any of its predecessors, but its *modus operandi* not much clearer. One of its latest and most enthusiastic exponents, Gosselin, of Paris, says "this theory explains purulent infection by the absorption and introduction into the blood of invisible and intangible putrid or septic materials produced by the blood, serosity, gangrenous tissues, and mortified inflammatory exudations which are found on the surface of wounds during the early weeks of suppuration, and sometimes later." Yet Gosselin confesses that "a rigorous explanation is nearly impossible," and "we are always brought up in this research against something that was inexplicable and hypothetical." The lectures of this writer on pyæmia are exceedingly interesting and instructive, but there is no sentence in them which will meet with more unqualified approbation than this one: "The best plan, perhaps, in the presence of this difficulty would be to adopt no theory, and wait until we have one which is established upon solid bases."

The *treatment* of hepatic abscess has never been so much discussed as its pathology. From the earliest medical ages to the present day the universal practice has been to remove the pus; this has been accomplished in various ways. The "early fathers" in surgery opened these abscesses with sharp-pointed irons heated to a red heat; their object was to puncture and cauterize at the same time, and thus prevent the flow of pus from the abscess into the abdominal cavity. Another mode of opening them was by the constant application of caustics until a way was opened from the side to the liver. Graves relates with some pride how he treated a case successfully by cutting down through the abdominal muscles, over the centre of the tumor, to within one or two lines of the peritoneum; the incision was plugged at its bottom with lint, and two days after this operation the patient sneezed, and a great quantity of pus burst through the wound.

The practice of to-day is, evacuate the abscess with an aspirator—an operation as free from danger as puncture of the bladder with the same instrument, and which promises more certain relief than any other mode. It is worse than useless to attempt to promote absorption. Pus as pus is never re-absorbed, and we have no time to wait for the gradual disappearance of the pus-serum and the fluid in the corpuscles themselves.

ART. VI.—**Some Uses of Ergot.** By H. T. RENNOLDS, M. D., Baltimore, Md. (Read before the Medical and Surgical Society of Baltimore, April 21, 1880.)

For many years ergot was used almost exclusively in the puerperal state, but of late its use has been extended to hæmorrhages generally, and to the treatment of fibroids of the uterus. Its power to contract the capillaries has led to its employment in other conditions where hyperæmia exists. Internal hæmorrhoids have also been treated successfully by ergot alone, administered hypodermically.

In labor it is used extensively, and is no doubt largely abused, especially by midwives. "Forcing powders" constitute their chief armamentarium. The profession use it much less than formerly, and with greater discrimination. The practice of giving ergot to save the time of the physician is not resorted to now very often since the danger to the life of the child and injury to the mother resulting from its misuse has been so often forced upon the attention of the profession. Dr. Harlow, President of the Obstetrical Society of Philadelphia, says, in a recent discussion: "It is a well-established rule in this city that ergot should be given only at the end of the second stage of labor, to accelerate the delivery of the placenta, and prevent hæmorrhage."

A few brief extracts from the proceedings of this Society may be taken as showing the American practice at this time. Dr. Wilson considered its action in *post-partum* hæmorrhage as uncertain. Ergot in the first or second stage of labor, he thought, may act with uncontrollable violence, rupture the uterus, or tear the vaginal walls, and lacerate the perineum

when the canal is not open or relaxed. He never gives ergot until near the close of the second stage, and in cases of known tendency to *post-partum* hæmorrhage. He has great confidence in the use of ergot, but great dread of it when improperly given.

Dr. Parrish does not give ergot until the placenta is extruded. In prolonged hæmorrhage, he prefers quinia as a hæmostatic.

Dr. Packard considers ergot useful when the surface is blanched, and the pulse large and gaseous. It causes a contraction of all the blood-vessels upon the fluid which they contain, increasing arterial tension, and thus preventing fainting or averting danger of death from heart-clot. It is irrational to give ergot during the first stage of labor, as it causes contraction of unstriated muscular fibre, and would thus retard parturition.

In the course of the very able discussion last year in the Obstetrical Society of London on the use of the forceps, the use of ergot was very naturally mentioned by all the speakers. A few quotations from leading obstetricians of Great Britain will show the present teaching and practice there. I will give a few striking passages from the very full report in the *Lancet*:

Dr. Roper says: If in a case we decide to deliver with forceps, he has never regarded it as good practice to do so without using ergotine by subcutaneous injection. He does not trust to ergot alone, but uses it as an adjuvant. Although ergot generally stimulates the uterus to increased action, it does not always succeed in expelling the child. The uterus, under the influence of ergot, seems at times to contract on the child, and thus, by its continuous tonic action, it may speedily destroy the life of the child if it is not quickly liberated from the vice-like pressure. When its influence is expulsive, he would give it a chance of effecting delivery, but he would not wait longer than ten minutes after the uterus has become ergotized before applying the forceps. He exhibited two casts, which represented, in the one case, a large, round head, born in a feeble, lingering labor—the mother having had fifteen children at full term. Ergot was given in the second stage of labor, which severely ergotized

the uterus, and the child was not expelled till after it had been squeezed to death. The second represented the head of a child extremely moulded, having been left a long time in a laborious first labor. Doubtless, the timely use of forceps would have saved the lives of both these children. One child lost its life by ergot; the other by expectancy too long continued.

Dr. Braxton Hicks remarked that, in the second stage of labor, when the head is in the cavity of the pelvis, and the uterus is a little inactive, he has used ergot without fear, because, with the forceps by his side, if he finds that the uterus is not equal to deliver, he can supplement its efforts by the forceps.

Dr. Daly says that it is his rule to give a dose of ergot, and to put on the forceps if it does not act immediately. He has scarcely ever had a case of still-birth at full term.

Dr. Barnes believes there is a great deal of evidence to show that ergot is attended by larger foetal mortality than the forceps in cases where one might be used instead of the other.

Ergot is used extensively in hæmoptysis, hæmatemesis, hæmorrhoids, and in all forms of hæmorrhage in which we depend upon medicinal treatment. Perhaps no remedy is at present so much in vogue; though ordinary astringents—particularly sugar of lead in combination with opium—will be found more generally reliable.

The contraction of the uterus caused by ergot has been availed of for the compression of intra-uterine fibroids, and many cases have been mentioned in the journals illustrating its utility. For more than a year, I have been treating internal hæmorrhoids by hypodermic injections of fluid extract of ergot, and with most gratifying results. I could give in detail a number of cases which have ended favorably after having existed a long time.

Dr. Andrews, of Chicago, investigated the treatment of a number of itinerant pile doctors whose success was undeniable, and found that carbolic acid or ergot was the agent chiefly employed. I first met the suggestion in the *Medical and Surgical Reporter*, February 15, 1879, and have since treated a large number of cases with uniform satisfaction.

ART. VII.—**Infant Feeding.** By GEORGE E. WILEY, M. D., Abingdon, Va. (Read before Abingdon Academy of Medicine, and published at the request of that body.)

When we reflect for a moment upon humanity as a mass, we are led to the conclusion that it is almost by special providence that as many children reach maturity as do.

Leaving out of the question the heathen nations, where the infant is sacrificed by the mother to appease the wrath of an unknown God, or to satisfy a foolish superstition, and reverting to the civilized nations alone, it is not less remarkable that as many children as do live to manhood and womanhood. Advancement in civilization and in the science of medicine, are not yet sufficient to save the helpless babe from an untimely death. How often do parents who love their offspring, and ought to do everything, in the management of their children, to make them strong and vigorous, both mentally and physically, and to avoid everything that has a tendency to make them weak and effeminate, through misguided fondness, hasten them to early graves. The moment the child ails the least bit, they imagine it has some desperate disease and run for a doctor, who often, I am sorry to say, either through ignorance or prompted by mercenary motives, does not dispel the vision, but throws in his powders, pills and potions till the child has something the matter with it. It is physicked within an inch of its life, with all the opiates, gray powders, carminatives that the ingenuity of its protectors can suggest. But not satisfied with this drugging with all the different medicines in the apothecary shop, thousands of them are fed from the same source. How frequently are children in cases of diarrhœa put upon arrowroot as the exclusive diet, and by the advice, too, of medical men so-called. This is no doubt the cause of the death of many infants. There is nothing more injurious than this popular arrowroot feeding.

In a foundling hospital in France some investigations have been made with reference to the state of the contents of the bowels after death, and it has been found uniformly to be the case that infants fed upon farinaceous substances con-

tained in the bowels a jelly-like substance, which, upon being tested with tincture of iodine, produced the characteristic blue color, proving it to be starch. This proves that these farinaceous substances which it is the custom to substitute for milk in these and similar institutions throughout society at large, does not find material in the very young infant to convert the starch into digestible sugar.

I have mentioned this arrowroot feeding only to illustrate some of the evils of infant feeding. There are many other errors in the diet of infants just as injurious as this. Ten thousands of babes, before they are out of their mother's arms, sip tea and coffee three times a day, which, to be sure, is the true way to make heroes. How often are we called to see infants, and are told by the mother that it throws up all of its food. The milk returns as it was swallowed, or is curdled and has a sour smell.

The child is fretful and restless at night; the evacuations are unnatural—either green or clay-like, and sometimes mixed with blood; the countenance is contracted and wrinkled. The exhaustion continues, and it goes on from bad to worse till finally convulsions close the scene. What has been the matter with this infant? How and for what has it been treated? Well, perhaps, for gastritis, and hence it has taken from a loving mother's hand (by advice) chlorate of potash, calomel and ipecac, small doses of some alkali—bicarbonate of potash likely, nux vomica, bismuth, jalap, some ferruginous tonic, has had poppy stupes and linseed poultices applied. Yet the baby died. Or, perhaps, if in the city it has cholera infantum, in which case it has received opium, rhubarb, sulphuric ether, charcoal with tartrate of iron, carbonates of the alkalies, mineral acids, metallic salts, especially calomel and nitrate of silver, tannin, creosote, etc., and its food is very likely *tapioca* and *pure arrowroot*. Even this treatment has not been successful!

Let us see what has been the matter. After death a softening of the coats of the stomach and intestines is found, with no sign of inflammation—the softening appearing to depend upon a diminished cohesion of the tissues—the result, in fact, of slow starvation. The infant has

had dyspepsia brought about by improper diet—a disease so nearly allied, in many of its symptoms, to other infantile disturbances as to mislead the unwary physician into hasty and consequently dangerous prescriptions.

When called to see an infant with the symptoms mentioned, seek diligently for the cause before prescribing; for dyspepsia with infants is no uncommon disease, especially since it has become so common to raise children by hand, where careless washing of the bottle and careless preparation of the milk, etc., gives abundant cause for it. How much suffering would be avoided, how much medicine saved, how many lives spared, if children from infancy to childhood could have special attention paid to their diet?

Nothing can show the disposition of mankind to depart from nature more than their endeavoring to bring up children without the breast. The mother's milk is unquestionably the best food for an infant, and neither art nor nature can afford a proper substitute.

Besides the diseases of the food passages and abdominal organs induced by improper diet and drugs, when we consider the diseases of the air-passages and thoracic organs, diseases of brain and nervous system, congenital affections, fevers, and the many thousand that find their way to the bottom of wells, rivers, sewers and cesspools, we must return thanks to *providence* for as many infants as do live to bless the world.

Clinical Reports.

- (1) **Idiopathic Tetanus from Cold—Death in Six Days.** (2) **Traumatic Tetanus—Recovery.** Reported by JOHN N. UPSHUR, M. D., Richmond, Va.

CASE I.—*Idiopathic Tetanus.* I was called *January* 6th, 1880, to visit R. W., colored, æt. 41 years, and found him sitting in a rocking chair. His facial expression was anxious; his head was drawn forcibly back, and all the muscles of the back were in a condition of tonic spasm; he could only open his mouth half an inch. Tongue coated; pulse full and frequent. There was no injury anywhere, though such was

suspected because of his occupation, blacksmith. He was in the habit of carrying out milk in the morning to his customers. He walked very fast, got overheated, then took off his coat at the shop, thus contracting the cold which was the cause of the tetanus. He had, at one time, been a hard drinker.

At my visit on the 7th of *January*, he was suffering greatly, and could not be kept in bed. Opisthotonos violent, well marked and of frequent occurrence. There was extreme hyperæsthesia of the whole surface—the slightest movement of the bed-clothes or touch bringing on violent clonic spasm; jaws rigid and more or less tonic spasm.

On 8th and 9th, but little change in his condition was manifest, except lengthened intervals between the spasms.

On 10th, he became much worse and comatose. He was treated with full doses of bromide of potassium, chloral hydrate, quinine (which he took only one day), and free purgation, with counter-irritation to the spine with turpentine, but nothing was of any avail, and he died on the morning of the 11th. No autopsy.

CASE II.—*Traumatic Tetanus*. On the 20th *January*, I visited J. A., colored, æt. 34 years, by occupation laborer, and previously healthy.

On the 3d of *January*, he caught the middle finger of his right hand between two pieces of granite at the stone yard at which he was employed, crushing it, though not very badly. I found him in bed, and with spasm on him when I entered. His jaws were rigid, opening only one inch; abdominal muscles very rigid from tonic spasm; and he complained of severe pain from cramp in the epigastric region. The opisthotonos was severe and well marked. He first noticed some stiffness of his jaws three days before in attempting to smoke a cigar. Tongue coated, and protruded with difficulty; pulse 100 and very full; voice husky. *The skin was not abnormally sensitive*. Ordered flaxseed meal and laudanum poultice to be applied to the injured finger, and to take at once an ounce ol. ricini with one drachm spirits turpentine, and every two hours a tablespoonful of the following mixture:

R. Potass. bromid.
 Chloral hydrat..... \overline{aa} 5ij.
 Sulph. morphiae.....grs. ij.
 Syr. tolu.....5j.
 Aquæ menth. pip. ad.....5iv.—M.

6.30 P. M. The oil, etc., acted once. He had taken two doses of the mixture, and now expressed himself as comfortable, and said he was hungry. No opisthotonos since the first dose of the mixture. He was directed to have an abundance of *sweet milk* and *no other diet*, and to continue the mixture, and to morrow morning repeat the dose of oil, etc.

21st A. M. Patient passed a comfortable night, though he did not sleep much; had one copious action from the oil, etc. No return of the opisthotonos, except a very slight attack just after I entered the room. Can open his mouth fully two inches; pulse better, and the spasm of the abdominal muscles less; expression good. He was ordered to take the anodyne mixture every four hours, and two grains of calomel every two hours.

P. M. He has taken three of the calomel powders, and said he did not feel so well; he had some slight spasms during the day. No action from the calomel, though he said he then felt an inclination.

22d. Slept well last night, and said that he felt better than he had since he was taken sick; muscles relaxed, except the *abdominal*. Calomel acted well. *Retention of urine*, which was relieved by the use of the catheter—one of Joaque's soft rubber being used. The passage of the instrument brought on opisthotonos, though it was not violent, and a large quantity of urine flowed off with great comfort to the patient. He was allowed beef soup, free of grease, and minus the usual vegetables.

P. M. No spasm all day. He took soup with relish; passed the catheter; no spasm. He has continued the use of the first mixture prescribed, taking at night a double dose.

23d. Slept well last night. Desire to pass his water brought on opisthotonos; pulse 114; respiration normal, as it has been from the beginning. I directed him to take anodyne mixture every hour and a half.

P. M. Very comfortable during the day; no spasm, except the tonic spasm of the abdominal muscles. To-morrow morning, he is to take castor oil, etc.—his bowels not having been moved for several days.

26th. Much better. He passed his water voluntarily, it being copious and frequent.

27th. Take thirty grains potass. bromide three times a day, and stop mixture.

28th. Patient *worse than ever*. Bromide of potassium did not control the spasms, and they recur more frequently and

with more violence than ever before. Stop bromide of potassium, and

R_x. Sulphate of morphia.....grs. $\frac{1}{6}$.

Ammon. bromide.

Chloral hydrat..... $\overline{\text{aa}}$ grs. xx.

Mix. Make solution. S.: Repeat every two hours.

Nail nearly off the injured finger.

February 7th. Patient has done very well during the past two days; is sitting up; appetite good; suffers at times with local spasms, but they are subsiding. The last anodyne mixture was gradually withdrawn, and he was to-day put on tincture of gentian and dilute phosphoric acid.

10th. Some diarrhœa, controlled by tincture of opium, and he is to take two grains sulphate of quinine three times a day.

For several days succeeding this time, he suffered from some sense of weight on the right side of the head, and inability to co-ordinate the muscles on the right side of the body when attempting to walk. At this time he complained of most urgent sexual desire. He had no further treatment, and was discharged cured on the 21st of February.

Remarks.—The above cases present several points of interest, first of which I would note the fatal termination of the idiopathic case, and the recovery of the traumatic—this being the converse of the usual order of things. The former is considered by authorities* as the most favorable, because usually the more chronic form.

I would also call attention to the fact that both cases were negroes. My experience during a sojourn of more than a year in a Freedmen's Bureau Hospital, and of eleven years in private practice, has tended to convince me of the fact that the *negro race* is more liable to convulsive nervous affections than the white race; and everything else being equal, I believe that simply *race* or *color* is a *predisposing cause* to this (convulsive) variety of nervous trouble.

It is to be noted that in the case of idiopathic tetanus, the man had been a *hard drinker*; hence, with an impaired constitution, he was more liable to convulsive trouble, and had less power of resistance when attacked. In the traumatic case, the man had always been steady and temperate in his habits.

*Druitt, *Practice of Surgery*, pg. 37.

Finally, the existence of intense sexual appetite when this patient became convalescent is worthy of comment, when we reflect that he had constantly taken, for three weeks, large and frequently repeated doses of chloral hydrate, bromide of potassium, and bromide of ammonium, the two latter ranking high as *anaphrodisiac* medicines.

The want of power to co-ordinate the muscles of the right half of the body, was attributed to the amount of these medicines which he had taken, and I think the fact that this power was soon regained upon the withdrawal of these remedies conclusive proof that this supposition was true.

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Original Translations.

From the German and French. By WM. C. DABNEY, M. D.
Charlottesville, Va.

Polypoid Excrescences of the Urethra in Women Symptomatic of Tuberculosis of their Urinary Organs.—(*Le Progrès Médical*, February 14th and 21st.) The following conclusions are reached by Dr. Terrillon as a result of his investigations on this subject:

Polypoid excrescences at the orifice of the urethra in women may present, from an etiological point of view, two distinct varieties. (a) In the one case, the polypoid excrescences are idiopathic, or else are due to some simple irritant. These are benign growths, and their removal leads to a prompt and permanent cure. Fortunately, they are much more frequent than the other variety. (b) The other form of polypus possesses the same external characters as the preceding, but it accompanies or precedes a tuberculous urethritis or cystitis of which it is a very significant evidence. The prognosis in these cases is of course very grave on account of the general disease. It is often extremely difficult to diagnose tuberculosis of the urinary organs, and these little growths often seem to establish the diagnosis.

The treatment of the latter form of growths is exceedingly unsatisfactory. The most that can be done is to give temporary relief.

Peri-nephritic Abscess Opened by the Thermo-Cautery—Cure.

At a recent meeting of the Société Médicale des Hôpitaux, M. Dugent read the report of a case of this character. We take the following abstract from *Le Practicien*, of February 23d, 1880:

The patient was a man, 36 years of age, who had been suffering for twelve days prior to the time M. Dugent saw him with fever, loss of appetite and strength, and violent pain in the region of the right kidney. When he entered the Hospital, his expression was very anxious; temperature 39°C. There was constant pain in the right lumbar region; but there was no swelling or fainting. Fifteen leeches were applied without benefit. On January 2d (the patient entered the Hospital in December, but the day is not mentioned), swelling and œdema were very manifest, and on January 12th there was evident fluctuation.

Local anæsthesia having been produced by cold, an incision was made with the thermo-cautery seven or eight centimetres long, parallel with the last false rib in the right side and one centimetre below it. When he had reached a depth of about six centimetres, there was a discharge of half a litre of pure pus. The general symptoms rapidly improved, and the recovery was complete within forty days of the time that the troubles commenced.

By a singular coincidence, two other similar cases entered the Hospital about the same time, which were supposed to have been caused by fatigue and exposure to cold. They were opened with the thermo-cautery as in the preceding case, and recovery occurred promptly without any complication.

M. Constantine Paul reported a case at the same time, showing the necessity for caution with respect to the diagnosis of peri-nephritic abscess. Not long since, a patient fell into his hands presenting all the symptoms mentioned by M. Dugent, the subject being a woman of decidedly cachectic appearance. He diagnosed a peri-nephritic cancer, but as fluctuation developed, he supposed that pus had formed around the neoplasm. A puncture gave vent to about two hundred grammes of pus, and the patient began to recuperate at once. Suddenly, however, a considerable quantity of bile was discharged by the fistula, which at once showed that the abscess was developed in connection with the liver. The discharge lasted a long time, and the health of the patient was never entirely re-established. It is evident from this that when one encounters an abscess in the lumbar region, he should think not only of a peri-nephritic, but also of a peri-hepatic source.

[The Translator saw a few years ago a lady who suffered for weeks from most obstinate sciatica before any enlargement could be detected on the most careful examination, but finally a peri-nephritic abscess made its appearance and was evacuated externally; the case terminated in recovery.]

Cold Abscesses and Especially Cold Tubercular Abscesses and their Treatment.—An interesting discussion on this subject took place at the meetings of the Société de Chirurgie on the 18th and 25th of February last. M. Lannelongue read a paper on the subject which elicited the discussion. He defined cold abscesses, from his point of view, as purulent collections situated in the cellular tissue, which are sometimes simple, sometimes symptomatic, which cause no systemic reaction, and no pain and no local heat. He thinks that they are due to a "tubercle of the cellular tissue," which is at first in the form of a granule, but subsequently becomes caseous. He divides cold abscesses into two groups: the abscesses in the one case occurring simultaneously with chronic osseous lesions; in the other being independent of such lesions. Inasmuch as the abscesses in many cases are at a distance from the diseased bone, he thinks it must be conceded that the tuberculous matter is conveyed through the lymphatics. In the second variety of cold abscesses, when there are no osseous lesions, little masses, the size of a grain of wheat or of rice, appear in different parts of the body, and increase more or less rapidly in size. Thus they are found at different places in different stages of development. Around the nucleus of one of these masses, when it commences to soften, a very distinct membrane is formed.

The treatment depends upon the stage of the abscess. In the commencement, when it is small, it is necessary to open the abscess or tubercle, and then to scratch or irritate the pyogenic membrane, which is a constant source of trouble otherwise. Instead of waiting for these abscesses to burst spontaneously, M. Lannelongue opens them himself, and then scratches the membrane thoroughly. When the abscess is small, he claims that he frequently gets union by the first intention. In the case of larger abscesses, he opens them freely, whatever stage they may be in, and then washes the cavity with a solution of carbolic acid of 20 per cent. The walls of the cavity are thus cauterized and assume a yellowish color. If no osseous lesion exists, a complete cure may be obtained. If, however, there is an osseous lesion, a fistulous opening will remain. On the evening of the operation, there is a slight rise of temperature.

M. Ledentu, in commenting on M. Lannelongue's paper, stated that some cold abscesses were not tuberculous; a certain number are developed in the lymphatic system. Sometimes a chronic lymphangitis may succeed to an acute lymphangitis. With respect to treatment, M. Ledentu did not think that cold abscesses of osseous origin should be opened even when all the details of Lister's antiseptic method were employed. In an adult, suffering from a cold abscess of the buttock, he had ventured to open it; but in spite of all possible precautions, it was an utter failure, and the patient died in two months.

M. Verneuil said that opening cold abscesses in adults had always given bad results, but he thought, in children, the operation was sometimes followed by success.

M. Despres said he thought some of the abscesses described by M. Lannelongue were scrofulous enlargements. Flanbert had practised total ablation of cold abscesses. The point to be remembered was, that simple cold abscesses might be cured, but if the subject was tuberculous, he always died.

Helio-Therapy, or the Beneficial Effects of Sunlight.—By Dr. Giuseppe. This paper originally appeared in an Italian journal, and was thence copied into the *Allg. Wiener Med. Zeitung* for February 17th, 1880, from which we take the following abstract:

Attention is first called to the fact that chronic affections of the joints, whether traumatic or of rheumatic origin, are remarkably rebellious to treatment. Hot sand, inunctions of mercurial ointment, painting with iodine, and blisters, have all been faithfully tried and found almost useless. More recently plaster-of-Paris bandages were used, and great expectations were entertained about them; but they, too, have failed to do the good which was expected of them. Next, massage was warmly recommended, but chronic joint affections still proved tedious and troublesome.

Being impressed with the favorable results which Prof. Vanzetti, of Padua, had obtained from the direct influence of the sun's rays in obstinate joint affections, such as synovitis and white swelling, Dr. Giuseppe determined to give the treatment a trial, and his results have been highly satisfactory. The treatment was carried out during the summer, between the months of May and August. The treatment lasted from one to three weeks, according to the intensity of the disease and the length of time it had lasted. The affected joints were exposed to the sun's rays one or more hours each day. Under this treatment, the skin became brown, the

exudation was absorbed, and there was a decided gain in the nutrition and mobility of the joint.

The editor of the *Allg. Wiener Med. Zeitung* suggests that the sun may have three different modes of action on the body, namely: through the heat which it gives off; through the effect of light; and thirdly, a chemical action. He thinks it likely that not only the nervous system, but also the circulation of the lymph and blood is affected thereby.

Dr. Giuseppe thinks the treatment well worthy of further trial, especially on those who are too poor to buy medicine. It might be tried with advantage in conjunction with massage.

Analyses, Selections, etc.

Prepared by HUGH M. TAYLOR, M. D., Demonstrator of Anatomy, Medical College of Virginia, etc., Richmond.

Preventive of Uterine Hæmorrhage.—By request of the Obstetrical Section of the New York Academy of Medicine, Prof. Isaac E. Taylor read a paper upon this subject, which is published in the February No., 1880, of the *Independent Practitioner*. The views of one so eminent in the profession upon a subject of such great import to the profession makes this paper of special interest.

The title of his paper is embodied in two propositions: (1) Flagellation or spanking the child's back previous to its complete delivery as a preventive to uterine hæmorrhage. (2) Flagellation of the abdomen of the woman after delivery of the placenta as a substitute for the introduction of the hand into the uterine cavity. The author graphically pictures the horrors of uterine hæmorrhage. Then he reminds us that the uterus is the only organ in the female economy that has an habitual sanguinous fluid issuing from it, and that it is the only organ which has large, oblique, open sinuses without valves; that the blood coming through these sinuses directly from the vena cava and heart itself, and not from the returning veins of the uterus; and also of the fact that there is no safety in uterine hæmorrhage except from nature's tourniquet—instantaneous uterine contraction. He claims for the method originality, simplicity and efficiency—one always on hand, and having for its recommendation a physiological basis.

If hæmorrhage occurs or is feared before the delivery is

completed, the application of the method consists in moderate and occasional flagellation or spanking of the child's back. After the shoulders are delivered, the breach and extremities of the child should remain in the vagina for fifteen minutes or more before they are withdrawn. The feet are thus placed in opposition with, or in the cervix-uteri. Pressure over the uterus by the hand is to be avoided until the delivery of the child, which should be slow and gradual, as it might effect the delivery of the child before we have gained our object. The spanking should be gentle, but quick and continued, until the delivery of the child is completed.

If hæmorrhage occurs after the delivery of the placenta, his treatment consists in exposing the abdomen of the patient and flagellation with a towel doubled up, the ends held in the hand, and saturated or not with ice water. Several rapid and powerful strokes should be made, when the uterus will be felt contracted or contracting. Should uterine contraction once be secured, and relaxation occur, a milder application of the same means may be resorted to.

The treatment is not applicable to those cases where the hæmorrhage is associated with fibrous tumors, polypi and adhesions to the peritoneum; nor to those cases of hæmorrhage which come from secondary causes, such as anæmia and heart and kidney diseases. His treatment refers especially to uterine atony or inertia, presenting a functional paresis of the uterus, appearing sometimes before but more especially after the delivery of the placenta. The treatment is adapted (1) To those cases where the uterus is large, soft and flabby, and scarcely recognizable by the hand. (2) To those where the uterus is distended with blood and as large as at full term of gestation. (3) To the smaller number—the soft uterus and less perilous.

In offering an explanation of how his method accomplishes uterine contraction, he reminds us of the established fact, that in the dilating stage of the cervix-uteri during labor, the nerves engaged are those which are solely and wholly in relation with the true spinal marrow or medulla spinalis. The medulla oblongata, or the functions over which that portion of the nervous system presides, is not yet engaged; and when the foetal cranium comes to pass through the cervix, and then to press upon the vagina, a new series of events arises, and another class of excitor nerves begins to act, and reflex spinal action is established.

After the delivery of the child, the tender surfaces of the vagina and cervix-uteri become instantly excitor, and when

they are touched, the motor irritation of the uterus will be more susceptible and quickly provoked, and more rapid than when acting alone.

The vaginal and cervical excitor nerves are not only in relation with the true spinal marrow or medulla spinalis, but they are in consonance with the medulla oblongata and cerebellum. The excitation of the vaginal and cervical nerves, therefore, through reflex action, arouses the motor nerves going to the body of the uterus, and they become instantaneously engaged or brought into action by the irritation or titillation of the child's feet when the back is slapped, and through the distension of the vagina by the breach of the child.

Sympathetic Otitis.—Dr. E. A. Cobleigh reports in the March No., 1880, of the *Cincinnati Medical News*, some cases of otitis which depended primarily upon dental irritation. No other cause for the otitis could be found. Treatment directed to the diseased teeth and gums was speedily followed by a mitigation of the ear trouble.

The writer is convinced that the irritation from the teeth is propagated to the ear, and probably first interferes with its nutrition, and then gives rise to a high grade of vascular disturbance that eventuates in destructive inflammation. He also calls attention to the fact that a vast number of such attacks occur during the period of first and second dentition, and advises a more careful examination of the teeth in infantile otorrhœa, and a less frequent resort to the much abused condition of taking cold.

Casts of Uriniferous Tubules—Their Nature and Clinical Significance.—Dr. James Tyson, of Philadelphia, concludes a paper upon the above subjects, which he published in the *Philadelphia Medical Times*, March 13th, 1880, with the following statements:

When we come to ask the question whether by the kind of casts present we can diagnose the nature of the renal malady, a less positive reply can be given; but, nevertheless, some of the varieties give us considerable assistance in making a diagnosis. The following general statements may be made:

1. Hyaline casts are found in all forms of Bright's disease, as well as in temporary congestions of the kidney, active or passive.

2. Epithelial casts are found in acute, sub-acute and chronic

parenchymatous nephritis. In the latter two forms, the cells are generally degenerated and fragmentary.

3. Blood casts are found in acute parenchymatous nephritis, and where hæmorrhages have occurred in the kidneys.

4. Pale granular casts are found in interstitial nephritis (contracted kidney) and chronic parenchymatous nephritis.

5. Dark granular casts are found in parenchymatous nephritis—acute and chronic—and rarely in interstitial nephritis.

6. Waxy casts are found only in chronic Bright's disease, and attend either of the principal forms.

7. Oil casts are found in sub-acute and chronic forms of Bright's disease, and may attend any of the three principal forms, but are most numerous in chronic parenchymatous nephritis (fatty kidney).

8. Free fatty cells and free oil drops are found in chronic parenchymatous nephritis.

9. The form of fatty cell, known as the compound granular cell, is found in acute and chronic parenchymatous nephritis.

Peri-articular Abscess of Knee Treated by Callender Method—Atropine to Overcome Collapse—Carbolic Acid Poisoning.—In the March issue of the *Therapeutic Gazette*, Dr. F. Gundry reports a case of peri-articular abscess of the knee-joint occurring in the practice of Dr. Lewis A. Sayre, which was treated by the plan of the late Mr. Callender, viz., by hyperdistension of the sack, in which there was a probable rupture of the pyogenic membrane and a rapid and almost fatal toxical effect from the absorption of carbolic acid. After other powerful measures had failed, prompt and permanent restoration from extreme collapse was secured by the hypodermic use of the sulphate of atropia. In his remarks, the writer shows the influence of Dr. Sayre's teaching, by his opposition to the indiscriminate association of scrofula with diseased joints.

The method known as *Callenderism* consists in evacuating the abscess, and then in injecting carbolic water into the abscess until the carbolic water is returned perfectly clear. The unpleasant symptoms in his case, which were supposed to be due to rupture of the sack and absorption of the carbolic acid, inclines the writer to think this treatment is not without danger, and possesses nothing to recommend it over Listerism.

Best Time to Remove Ovarian Tumors.—In a paper published in the March issue of the *Obstetrical Gazette*, Dr. Edward Borek, of St. Louis, considers the question of the time at which an ovarian tumor can be most safely removed. He quotes T. Spencer Wells as advising non-interference so long as the patient does not suffer much pain, is not annoyed by her size and appearance, has no great difficulty in locomotion, does not suffer from injurious pressure on the organs of the chest, abdomen or pelvis, and so long as the heart and lungs, digestive organs, kidneys, bladder and rectum perform their functions tolerably well. Emmett tells us (page 814) no inflexible rule can be laid down; but a judicious delay enables the peritoneum to become more tolerant of irritation, and much less liable to inflammation than it would be were the tumor removed at an early stage of its growth. On the other hand, the patient may be deprived of all chances of recovery should the removal be delayed until the vital powers are so much depressed that she cannot react from the shock of the operation.

M. S. Dunlap, in a paper read before the Academy of Medicine of Paris (October 20th, 1878), rejects the early operation, and considers that it is only indicated when the cyst has become, by its volume, a source of excessive inconvenience to the patient, or where by local or general effects it becomes a cause of imminent danger to life.

Late ovariectomy, although it ought not to be adopted as a general rule, is nevertheless not contra-indicated by the gravest local and general complications, such as peritonitis, suppuration, gangrene of the cyst, and extreme emaciation. Peaslee tells us that (in 1864) Wells, Black, Brown held, the more robust the patient is the better. Hutchenson maintained that the earlier we operate the better; so does Spiegelberg, of Breslau. Brown operates as soon as the diagnosis is established. Bryant, Clay and others hold the same views. Atlee, Bradford, Smith, Keith and Erichson think the results of the operation are more favorable if the general health is somewhat impaired by the ovarian disease—and Peaslee agreed with them. The writer concludes his instructive paper by considering the arguments in favor of and against waiting. The main favorable points for delaying the operation seems to be that the peritoneum may become less sensitive and less liable to traumatic peritonitis, for peritonitis destroys one-fourth of all cases (Thomas, 4th ed). Next is hæmorrhage, which is claimed to be less liable to occur in anæmic than in robust patients. Polycysts will terminate

fatally in twelve months after the third stage has begun; oligo cysts in about twenty-four months. The first grow more rapidly, and demand interference within about one year; the second within one and a half to two years. The average duration of life after the cysts have developed, is about four years; according to Lee two years. The conclusions he arrives at are, that it is better to recommend the operation a little too soon than too late, and that the early operation will be the accepted rule in the future for the following reasons:

1st. That abdominal section is by far not so dangerous under the antiseptic method as formerly without it. Peritonitis is thereby prevented, and we can operate at least one year sooner. (Observe the success of Schroeder and others had since the adoption of the antiseptic method; see also Nathan Bozeman's remarks on Ovariectomy, *New York Medical Record*, July and August, 1878.)

2d. The peritoneal cavity has been opened and exposed in other operations without peritonitis following, and when waiting for distension was out of the question. For Dr. Martin, of Berlin, has removed five times a floating kidney, four times successfully by abdominal section. Dr. J. Marion Sims tells us that his operations before Listerism would have been wholly unjustifiable. The danger of traumatic peritonitis is greatly reduced by Listerism; and the argument that in anæmic patients the danger of secondary hæmorrhage is not so likely to occur, seems to me not very solid; though it is true, where there is no blood, none can flow. The author prefers rather a little too much blood than too little. We can control a too rapid flow of blood by contracting the blood-vessels by ergot, and may thereby prevent oozing. But when there is too little, more bleeding is hard to be produced.

A judicious delay may be beneficial, but a too long delay will do harm. With our present stage of knowledge and facilities, the early operation would be preferable.

Insanity a Symptom of Uterine Disease.—Dr. J. G. Meachem, of Racine, Wisconsin, reports in the *Chicago Medical Gazette*, March, 1880, two cases of insanity caused by ulceration of the cervix-uteri. Their insanity was cured by appropriate treatment of the uterine disease.

Uterus not the Seat of all Pelvic Disorders.—In the March No., 1880, of the *Chicago Medical Gazette*, we find a case re-

ported by Dr. E. C. Dudley, of Chicago, illustrating the popular fault of referring all abnormal developments in or near the pelvis to lesions of the uterus. The patient, a married lady, aged 36 years, the mother of two children, came under his care in June, 1879. She had been treated by a number of good physicians, most of whom directed their efforts to the uterine system. A careful exploration disclosed a deep ulcer just below the inner margin of the anus, and its treatment was followed by a quick amelioration of her uterine trouble.

Diagnosis of Mammary Carcinoma.—In a clinical lecture delivered by Dr. Samuel W. Gross, on some points in the life and diagnosis of carcinoma of the mammary gland, based upon a study of one hundred cases, the following conclusions are arrived at:

“The points in favor of carcinoma are therefore non-development before the age of twenty; greatest frequency after the fortieth year; irregular shape; almost uniformly densely hard, and knobby feel; immobility in the gland attachments to the skin and deeper structures; solitary origin; comparatively small volume, and slow growth; retraction of the nipple; infiltration of the lymphatic glands; invasion of the skin by small nodules; non-enlargement of the sub-cutaneous veins; limited ulceration without any tendency to fungus protrusion, and the thickened, indurated and everted edges of the ulcer.

The diagnosis of the non-carcinomatous tumors is based, on the other hand, upon their occurrence, in every sixth case, before the age of twenty; their greatest frequency before the fortieth year; their multiplicity in one breast; their peripheral situation; their rounded or ovoid and bossed outline; the firm consistency of the smaller, and the unequal feel of the larger; their mobility in or on the gland and the adjacent tissues; their comparatively rapid growth and bulky size; the natural appearance of the skin; the enlargement of the subcutaneous veins when they are voluminous; their tendency to ulcerate and protrude late in the disease; the absence of adhesions between the fungus and margin of the ulcer; and their freedom from retraction of the nipples; nodules in the skin, and taint of the associated lymphatic glands.

Among the more prominent signs of carcinoma, are those which indicate local infection of the surrounding tissues; and a knowledge of the date of their appearance will prove ser-

viceable in deciding the question of an operation. Nodules may be looked for in the skin in fourteen months; the contaminated lymphatic glands of the axilla may be detected in fifteen months; ulceration in seventeen months, and deep adhesions take place in twenty-one months. These figures denote the average date, but Dr. Gross has known infiltration of the skin, pectoral muscle and glands, and ulceration to occur as early as four months; and to be postponed, on the other hand, for several years. Glandular involvement, indeed, may show itself as early as the first month, or even before the primary tumor can be felt; and from the fact that the glands are buried in the fat of the axilla, thereby evading early detection, he believes that their invasion ante-dates that of the skin. Be this as it may, if you are about to operate on a case in which there is nodular infiltration of the skin, you should be prepared to open the axilla and search for infected glands, even if they cannot be distinguished from without. Finally, he does not believe in the constitutional origin of carcinoma. We will obtain good results after operation if we can only secure cases in which the disease is limited to the gland itself. Even when the skin over the breast is infiltrated to a slight degree, and the lymphatic glands of the axilla are not too seriously involved, he believes that we may prolong life, if not obtain a radical cure, by extirpation. To do this, however, we must discard the operation as we usually see it performed, and remove the entire gland, with all its coverings, by a circular incision, dissect away the pectoral fascia and clean out the axilla. In other words, do not aim to secure a covering for the wound, but practice thorough excision.

Antiseptic Dressing.—In his remarks on antiseptic dressing published in the January issue of the *New York Medical Journal*, Dr. F. Weir makes the following statements: Experience has shown that the careful preservation of all carbolized material is imperative. The resin contained in the various mixtures mentioned below permits the evolution of carbolic acid to take place slowly; yet, even when such precautionary measures as enveloping the prepared dressings with rubber cloth or with oiled silk are used, a deterioration of the impregnated material will surely take place. In the *American Journal of the Medical Sciences*, for April, 1879, the writer called attention to the advantages of carbolized jute over Lister's carbolized gauze—not only in accommodating itself to the inequalities of surface in certain parts of the

body (as, for instance, the groin and the region of the breast and axilla), but also in being cheaper and more readily manufactured. In the latter respect particularly, he again begs leave, not only to commend the prepared jute, but also to testify to the excellent gauze that can now be made off-hand by means of a formula that has recently been made known by the German surgeon, Von Bruns. This is made by immersing gauze (cheese cloth) or coarse muslin, or even mosquito netting in a mixture consisting of 400 grammes of powdered resin, 2 litres of alcohol, 100 grammes of carbolic acid, and 80 grammes of castor oil. The resin is dissolved by heat in the alcohol, and the other ingredients are then added. The gauze thus prepared is even softer than when made after the formula of Lister, which, it is well known, can be obtained only with difficulty by the practitioner far from a large city. The jute is made by taking, for each pound of jute, 50 grammes of carbolic acid, 200 grammes of resin, 250 grammes of glycerine, and 550 grammes of alcohol. After immersing the jute in this mixture prepared by first melting the resin in the alcohol by warmth, and then adding the acid and glycerine, it is dried and can be immediately used; or it can be made by the cheaper method resorted to in the New York and Roosevelt Hospitals, consisting of the replacement of the alcohol by benzine in the proportions of 10 per cent. of carbolic acid, 40 per cent. of resin, 10 per cent. of paraffine, and enough benzine to moisten a pound of jute. The sum of his conclusions is, that new carbolized material can be easily made by any practitioner, and that it should be made in comparatively small quantities—not kept on hand too long—and should be preserved in a box in a cool place, tightly rolled up in rubber cloth, oiled silk or protective.

Quinine in Pneumonia.—In a clinical lecture published in the January number of the *Philadelphia Medical Times*, Prof. Austin Flint, Sr., speaks in the following emphatic way concerning the use of quinine in pneumonia. You will remember that the temperature in this case yesterday was $103\frac{1}{2}^{\circ}$. Quinine in full doses had the effect of markedly reducing this; and here I should like to say that, in this Hospital, I have noticed the above result over and over again. But more than this, not only have I seen quinine act in this prompt manner as an apyretic, but I have also not infrequently observed that it actually cut short the attack. In a certain proportion of cases, therefore, I conclude that it acts as an abortive agent. A few cases of pneumonia occur, in-

deed, in which the disease aborts naturally; but I believe the experience of every observer goes to show that this number is exceedingly small. Yet, although we cannot always, of course, expect this desirable result from the use of quinine, and although in certain instances it may, perhaps, not be of any benefit at all, as far as we may judge, there is this to be said about it: that, even if it does no good, it does no harm whatever, beyond occasionally producing a little cinchonism. The chances, however, are all in favor of its being of service in any case in which it may be employed; and, therefore, I desire to impress upon you the importance of never neglecting to resort to this agent, in full doses, in pneumonia. To-day, as we have learned, twenty grains of quinine have been administered in this case; and I believe that the patient at present requires fully as much as this in the twenty-four hours, notwithstanding the fact that the temperature is now comparatively low.

[The quinia treatment of pneumonia is now well established. German authors claim the plan as original with them, and some American writers have pushed its merits to such a degree that they seem to think they are the originators of the plan. But it seems quite well established that the chief credit of introducing the quinia treatment belongs to Prof. Otis F. Manson, of this city, who has made numerous publications on the subject. His first article, entitled "Malarial Pneumonia," was published in the *Transactions of the Medical Society of North Carolina* in 1857, and the second, "Pneumonia Cut Short," in the *Virginia Medical Journal* in the following year. See also his article in this journal.—ED.]

Radical Cure of Hernia by Injecting the Hernial Rings—In a paper read before the Otsego County Medical Society, Dr. Joseph H. Warren, of Boston, reports a number of bad cases of hernia which were cured by injecting, hypodermically, into the hernial rings, a combination of ether, alcohol, oak bark and morphine. Many attempts have, in the past, been made to operate for the cure of hernia by injections. Among the operators, we find the noted names of Velpcau, Pancoast, J. Mason Warren and others; but none except Heaton ventured to inject hypodermically, without first cutting down upon the parts, and none were so successful as to warrant us in saying that they had really discovered a radical and lasting cure, except Heaton. J. Mason Warren injected sulphuric ether; Schwalbe, of Germany, alcohol, and Heaton oak bark. But our author feels confident that, by combining ether, al-

cohol, oak bark and morphine in his injections, he occludes the rings with less disturbance of the constitution than when a single fluid is used. This combination, while exerting a sedative effect on the arterial system, possesses enough stimulating influence to cause a rapid and localized effusion of lymph which is readily organized into new tissue. The more plentiful, however, the effusion the more sure we are of strong adhesions and attachments. The fibrinous bands are not unlike the cicatrix of a severe scald or burn, and they serve to draw and bind together the hernial rings and surrounding parts. In accidental or congenital herniæ, occurring in infants and in children up to the age of six years, he advises us to use the aqueous extract of oak bark; for children from five to fifteen years of age, the extract of oak bark should be distilled to the consistency of glycerine with ten drops to the drachm of sulphuric ether. For old and long-standing herniæ—congenital or acquired—he finds the oak bark, distilled to the consistency of glycerine with one drachm of absolute alcohol to four of the extract, and one drachm of sulphuric ether, with one or two grains of sulphate of morphia, gives the best results. For three or four days after the injection the patient passes through a slight feverish condition; the manifestations of local inflammation soon pass off, and the patient progresses rapidly towards recovery. The writer advises, as a precautionary measure, that a truss be worn for some months after the operation. The tissues are new, the adhesions fresh, and in no condition to be put to the test at once.—*Med. & Surg. Rep.*, March 27, 1880.

Therapeutic Action of Quinine.—In the March number of the *Indiana Medical Reporter*, Dr. J. W. Compton reviews at length the therapeutical action of quinine, and urges upon the profession the importance of recognizing in it an agent for good, not only as an anti-miasmatic, but as an antiseptic, antiphlogistic, antipyretic, anti-neuralgic, prophylactic, and probably oxytocic. Quinine is universally conceded to be the remedy, *par excellence*, in all forms of miasmatic diseases. It will for a long time preserve, in a fresh state, flesh, milk, butter, urine, albumen, etc., and will check alcoholic fermentation in honey, or in preparations containing sugar; it kills the microscopic organisms that are the immediate cause of these changes. It exerts a poisonous and fatal effect on all infusorial life, and stops their further action upon the system when it comes in contact with them, either in the stomach or in the blood. The antiphlogistic and antipyretic properties

may be considered at the same time. The small or tonic or stimulant doses revive failing activity, while the large doses exert a depressing action. If the neuralgia is of a malarial origin, its indication is quite manifest; if of a non-malarial, intermittent character, the influence of the remedy upon the nervous system will prove a valuable curative agent. The prophylactic value of quinine has been tested in all portions of the world, and small daily doses administered to persons exposed to malarial influences have been found to be quite as valuable in preventing malarial diseases as it is efficacious in curing them. It is only when the practitioner considers the action of this remedy in accordance with these principles that its diverse actions are properly understood. In regard to the oxytocic properties, the writer should feel inclined to pass them by without comment, were it not for the diverse and opposite opinions which prevail in the profession; and for the apprehension he entertains, that many pregnant women, suffering from malarial disease, would have their health seriously impaired, even die from withholding this indispensable remedy, in that class of diseases, to the attacks of which they are quite as liable as other persons, and in whose cases the remedy is as imperatively demanded. From Dr. H. C. Wood we learn, that in 1871 Dr. Monteverdi announced that quinine is a uterine stimulant, causing at times, in the gravid womb, contractions sufficiently violent to induce abortion, and when given during labor, intensifying greatly the uterine pains, and after labor causing rapid expulsion of the placenta, and arresting uterine hæmorrhage; affirming furthermore, that in amenorrhœa or in menorrhagia from uterine inertia its action is no less marked. Dr. Jos. J. West says that many regard the use of quinine as dangerous, even criminal, in any disease in pregnant women. The belief of these persons is that this substance exercises a direct influence upon the uterus, causing powerful contractions and expulsion of the fœtus; and to support this notion, they are ready to bring forward innumerable instances of abortion after its use, and of cases of sudden suppression relieved by the prompt use of the same remedy. He then goes on to say that those abortions, etc., were due to the intermittent fever and not to the drug. In this latter opinion, Dr. Compton's experience would lead him to the same conclusions. Opposed, however, to the theory that ascribes abortifacient properties to quinine is the fact that in malarial districts it has been an indispensable remedy for a great length of time in miasmatic diseases, being used indiscriminately without

any such property being attributed to it until a comparatively recent date. Many authorities could be named who give the remedy to hundreds of pregnant women, without, in the slightest degree, producing uterine contractions. Altogether, it is a reasonable conclusion, that instead of quinine originating and producing the abortions charged to its account, malaria causes the contractions in a way easy to explain, and that the drug is the most reliable remedy we possess to prevent the abortion by arresting the disease. The tendency of intermittents to disturb the nerve-centres, to produce a shock of the system, is well understood. They also produce serious congestions of internal organs in which the uterus receives its full share of engorgement, sufficient to stimulate it to contraction. The uterine blood-vessels become engorged, and a collection of serum and blood between the chorion and amnion will detach the placenta; hæmorrhage takes place and abortion follows. Another fruitful source of abortion is the excessive vomiting so frequently the result of gastric trouble in malarial disease, and all this is for the want of the timely use of quinine to control the tendency of malarial attacks to produce shock and congestions. It may be true, that, by virtue of its tonic stimulant properties transmitted through the nerves to the muscular system, quinine may be utilized in cases of inertia of the uterus, and that tonic doses may impart sufficient energy to enable labor to be completed without interference; yet, as a remedy, it could not be relied upon to originate pains or to materially hasten delivery on other physiological grounds. He cautions all who may have this class of diseases to contend with, that they will find malarial disease a much more fruitful danger to pregnant women than is the remedy necessary to break up an intermittent.

[Another very important property of quinia, and one which should not be lost sight of, is its power to lessen or check after-pains. Over and over again, we have seen after-pains, whose severity was hardly equalled by those of the third stage of labor, effectually cut short by the timely administration of several large doses of quinine; and apart from the good it does in checking after-pains, it is fair to suppose it exerts some good in this condition as an antiseptic. Its value as an agent to prevent the shock of an operation, as well as that of labor, is becoming better appreciated every day. So thoroughly are we convinced of its efficacy, that we would as soon think of performing an important operation without chloroform or antiseptic precautions as without the previous administration of ten or fifteen grs. of quinine.—H. M. T.]

Viburnum Prunifolium in Abortion.—The *North Carolina Medical Journal*, December, 1879, publishes, with the hope of strengthening the growing confidence of the profession in the efficacy of this remedy, some cases in which viburnum prunifolium was used to prevent abortion. Viburnum belongs to the neurotic class of medicines, which Headland defines as “passing from the blood to the nerves or nerve-centres, and acting by contact with the nerve; and are general or special in their effect.” It is suggested, as a possible cause of this different effect, that there “may be a chemical or mechanical difference in the structure of the nerves.” Dr. Pareira thinks “they act as ganglionics, and affect that part of the system, supplied by the sympathetic nerve. Ergot is the opposite of viburnum in its influence on the special nerves of the uterus—the former acting as a stimulant, the latter as a sedative. The action of the uterus under chloroform shows that it is controlled by both reflex and ganglionic nerves, and that it is only the operation of the former, which is suspended whilst that of the latter goes on uninterruptedly, and labor proceeds as regularly as though the process depended exclusively on the ganglionic nerves. It is on the ganglionic nerves of the uterus that viburnum appears to act, for it impresses and promptly suspends the contractions. Its action also seems special, for its effect on the general nervous system is slight, and only noticeable in the more quiet and composed manner of the patient, which may be its indirect result by suspending uterine pain and contraction. So also in its influence on hæmorrhage, which may be relieved by checking the contractions, and thereby preventing further detachment of the placenta. Respiration and digestion are not appreciably influenced by it. The author observed but one instance in which the circulation was affected; after the fifth dose the pulse fell from 90 to 60 beats. The medicine may be extended in its application to the congested and neuralgic forms of dysmenorrhœa.

Moderately Cold Climate for Consumptives.—This paper appeared in the January number of the *New York Medical Journal* in the form of a reply from Dr. W. H. Geddings, of Aiken, S. C., to one which appeared in the September number of the same journal under the title of “A Plea for Cold Climates in the Treatment of Consumption,” by Dr. Talbot Jones, of Minnesota. Dr. Jones, in his paper, throws aside the long-cherished doctrine that phthisis is a disease of cold climates, and demonstrates, by means of well-chosen cita-

tions, that it prevails extensively in the tropics, and that it decreases in frequency as we approach the poles. He furthermore boldly asserts that equability of temperature is by no means essential in the treatment of consumption, and that the best results are frequently obtained in cold, dry climates, where the daily range of temperature is necessarily very great, the difference between the temperature of day and night being always greatest when the air is driest—as, for instance, in the desert of Sahara, where a degree of heat approaching that of a summer's day is not unfrequently followed by a night of intense cold. Hence, too, the extreme variability of the Colorado climate, with its average diurnal range of 28° . He demolishes the new-fashioned idea that diminished barometric pressure is the most important element in the climato-therapy of pulmonary consumption. His assertion that a too high degree of altitude is liable to induce hæmorrhage is admitted by all. The good results attained at mountain sanatoria he fully attributes to the great purity of the air. The correctness of this has been practically demonstrated by the careful researches of Küchenmeister, himself an advocate of elevated mountain sanatoria. After careful comparison of the vital statistics of the kingdom of Saxony, he discovered that in that country the immunity from consumption was not due to altitude, but to other causes; that consumption was found to prevail in the elevated regions of Erz and Bresengeberge, while many places in the valleys enjoyed more or less immunity; that immunity, when it did exist, was due to open-air occupations of the inhabitants; that, when agriculture and stock-raising were abandoned for factory work and mining, the disease prevailed just as extensively in the mountains as in the valleys. Dryness of the air Dr. Jones regards as a factor of paramount importance in the climatic treatment of consumption, and experience shows pretty conclusively that the best results are obtained in those climates possessing the smallest percentage of moisture, be it in Colorado or in Minnesota, at San Antonio or at Aiken. Having established the fact that the best climate for consumption is one that is dry and bracing, with a moderate amount of elevation, the author claims that these essential features are obtained to a great degree in the climate of Minnesota.

Dr. Geddings recapitulates these views only to do away with the impression conveyed in Dr. Jones' paper, that all the climates of the South are mild and relaxing, and to show that at least one resort in that section has a winter climate

possessing, in a high degree, those very attributes which he justly considers so essential in the treatment of consumption. The winter health resorts of the South are distributed over a tract of country embraced between the 28° and 36° of north latitude; and were a line to be stretched from Asheville, N. C., the most northern, to Tampa, Fla., the most southern of them, it would cover nearly five hundred miles. A moment's reflection will show that this immense territory must necessarily comprise an infinite variety of climates. Some of them, like Asheville and Aiken, are tonic and bracing, while others farther south are mild and sedative. The mean winter (November, December and January) temperature of Aiken is 48.59° F., which is certainly low enough to admit of its being classed as tonic and bracing, and thus fulfils the first of Dr. Jones' conditions. Having an altitude of 585 feet, and being the highest point in that portion of South Carolina, it has the requisite purity in its atmosphere. As regards dryness of soil and air, Aiken is surpassed by no station east of the Rocky Mountains. It is an undeniable fact that many consumptives have regained their health in Minnesota, and that there are many cases in which that climate, with all its severity, is indicated. Dr. Geddings thinks that the cases that are likely to do well in every cold climate are those in which there is little or no emaciation, in which the red elements of the blood are still abundant—cases, in short, in which, owing to the slight inroads made by the disease, the patient still possesses the power of resisting extreme cold. This class admits of a favorable prognosis in any bracing climate. But, granting that these cases do better in Minnesota, there still remains another, and, by far, larger class of patients, for whom, owing to anæmia, to great susceptibility of the mucous membrane to cold, that climate is too severe, but to whom the South still holds out the chance of a cure, or of greater comfort than can be obtained in the bleak northern climate. Dr. Geddings' object is, not to induce physicians to send their patients to Aiken, but to advise them to utilize our various resorts with the same degree of discrimination as they would prescribe any other therapeutical agent.

The Use of the Audiphone and Dentaphone.—In a lecture published in the March issue of the *College and Clinical Record*, Dr. Laurence Turnbull describes the construction and *modus operandi* of the audiphone and dentaphone. The watch dentaphone is made like a small hand telephone or "lover's telegraph." It has a mouth-piece, to which one end

of a string is attached; the other end of the string should be held between the teeth of the person spoken to; the person speaking speaks into the mouth-piece; the sound is transmitted by the string to the teeth, and from the teeth through the faical and temporal bones to the auditory nerve. The principle upon which the audiphone acts is the same. It differs in its construction, in that the receiver or mouth-piece is larger, convex, and resembles somewhat a fan. The application of the principle in both depends upon the power of certain bodies to convey sounds by being put into vibration by the human voice. When the auditory nerve is intact, deafness must necessarily be due to disease of the middle ear or obstruction of the auditory canal. These cases can hear with the audiphone or dentaphone; but in disease of the auditory nerve they will be of no service. The best method of determining whether or not the case is likely to be benefited by their use is to put a loud-ticking watch between the teeth and then over the auricle. If its ticking is heard louder when it is between the teeth, the case is likely to be benefited, as it shows that the auditory canal, and not the nerve, is the seat of the disease.

The Necessity of Slow Evacuation of the Distended Bladder.

In the *Journal of Materia Medica* (February, 1880), Professor Gouley details the dangers of rapidly emptying a distended bladder—those chiefly to be apprehended being hæmorrhage and general cystitis. The vesical parietes, from having been in a state of extreme tension, in an instant become flaccid; the capillaries of the mucous membrane, from having been greatly stretched and almost emptied, are suddenly gorged with blood, and being deprived of the hydraulic support of the urine, which but a moment before braced them up, these delicate walls, unable to resist the increased internal pressure exerted by the circulating blood, give way, and the blood oozes from thousands of little rents on the surface of the vesical mucous membrane. These vesical hæmorrhages are often abundant, and have been known to last for two or three weeks. The greatest danger, however, lies in the consecutive general cystitis, which cannot always be controlled. By a slow or partial evacuation, cystorrhagia and polyuria will generally be avoided.

Transfusion of Blood Successful.—Dr. S. A. Mason, of New York, N. Y., in the *Medical Record* of February 21, 1880, reports a successful case of blood transfusion, performed by

Dr. Geo. B. Twitchell and himself at Keene, Cheshire Co., N. H. The patient was a lady, 45 years old, who had received such injuries to her abdominal viscera as to result in gastro-intestinal catarrh, and who was thereby prevented from taking or assimilating proper nourishment. Her son supplied the blood from his arm. The instruments were mostly improvised.

Proceedings of Societies.

Medical and Chirurgical Faculty of Maryland.

The Eighty-Second Annual meeting of this body convened on Tuesday, April 13th, 1880, at Hopkins' Hall, in Baltimore, with about 80 members present. Dr. S. C. Chew, of Baltimore, the President, was in the chair; Dr. Samuel Regester, of Baltimore, Secretary. After the address by the President (relating chiefly to the growth of the Faculty), which was received with marked attention, the reports of officers and committees were received.

During the second day, Prof. John W. Mallet, of the University of Virginia, delivered the annual oration, in compliance with an official invitation. His subject was "The Claims of Science for its own Sake upon the Medical Profession." He contended that a warmer interest in science for its own sake could be manifested practically: First, by the individual example of those that determine that, however engrossing their practice, there shall always be a little time reserved for purely scientific studies. Second, the exertion of the powerful influence which may be brought to bear upon properly shaping medical education for the young men coming forward to join the profession, and in favor of true scientific training, and in opposition to the mere preparation for a calling in every-day life. Third, the upholding in professional assemblies of the value of pure science and the cultivation of a frank interchange of scientific thought. Fourth, the exertion of general influence upon society at large in favor of genuine science, and the guidance of public opinion toward discrimination between the true and the spurious.

Prof. Mallet dwelt at length upon the effects of scientific research, and referred to the use of scientific testimony in courts of law, where it affected life, character and liberty. In speaking of the education of young men for the profes-

sion, he contended that they should prepare by elementary steps in chemistry and anatomy. He also referred to the difficulties in procuring subjects for dissection, without which there could be no medical education.

Prof. J. D. Arnold, of Baltimore, read his report for the Section on Practice, which related chiefly to illustrating pulsations in various stages of diseases by the sphygmograph.

A memorial from Dr. J. Marion Sims and others of New York, asking Congress not to impose a duty on natural mineral waters of other countries, was received and signed by members of the Society.

During the third day's session, Dr. James A. Steuart read a paper on "Sanitary Science," in which he took the ground that the death-rate had decreased since the inauguration of sanitary measures. He referred to the character of the pump water of the city, the agitation of which subject in the newspapers had resulted in the condemnation of the pumps and the construction of drinking fountains. Much evil, he thought, had been averted by this, as was shown in the decreased death-rate in those wards where the pump water had been most used. He attributed all zymotic diseases to the system of privy wells. Seven years ago he had laid before the Mayor and City Council a plan of drainage for the city. Surface drainage he considered better than sewerage drainage, but a system of house drainage was also wanted. It should consist of a system of underground pipes, which could be constructed at an average cost of \$3 a year per house. It could be built by the issue of bonds by the city. If the medical profession were united, they could succeed. Dr. Steuart claimed that it was the physician's duty not only to cure the sick, but also to take steps to save the well. He also referred to his unsuccessful efforts to secure returns to the department of cases and matters pertaining to general health, and concluded with a reference to sulphurous acid gas and chlorine gas as disinfectants.

Dr. J. D. Thompson read a paper on the care of imbeciles, in which he took the ground that idiocy and insanity had no similarity, except as both indicated an abnormal condition of the brain. Insanity signified that a mind had once existed, and had been lost; idiocy that no mind existed in the beginning. Dr. Thompson gave a history of the establishment of training schools for the feeble-minded in this country, and the more recent attempt to do so in this State, where the \$25,000 appropriated in the House of Delegates for the purpose was stricken out in the Senate, because of a misunder-

standing. There was a probability, he thought, that the Pikesville Arsenal would be utilized for the purpose.

Dr. Theobald exhibited a bandage to be used in cases of eye affections and operations.

Dr. J. J. Chisolm read a paper on ophthalmia, describing the operation of severing the nerves of a diseased eye, thereby saving the other eye by preventing sympathetic action and destroying the pain.

Other papers were read as follows: "Lateral Sclerosis," by Prof. F. T. Miles; "Neurology," by Dr. Randolph Winslow; "Use of Caustics," by Dr. I. E. Atkinson.

A paper was received from the Georgia Medical Society protesting against the proposed grant of extraordinary power to the National Board of Health.

During the fourth and last day's session, the following officers were elected for the ensuing year: President, Dr. H. P. C. Wilson; Vice-Presidents, Drs. L. McLane Tiffany and G. Ellis Porter; Recording Secretary, Dr. Wilson G. Register; Assistant, Dr. Eugene F. Cordell; Corresponding Secretary, Dr. J. Edwin Michael; Treasurer, Dr. Judson Gilman; Executive Committee, Drs. Christopher Johnston, T. S. Latimer, J. C. Thomas, P. C. Williams and I. E. Atkinson; Board of Examiners for Eastern Shore, Drs. W. W. G. Wilson, A. H. Bayley, J. A. Johnston and J. E. M. Chamberlain; Western Shore, Drs. H. M. Wilson, Charles H. Jones, Richard McSherry, Jas. A. Steuart, F. T. Miles, T. B. Evans and S. C. Chew.

A resolution calling for private sessions, and forbidding papers read before the faculty from being published in the newspapers, was tabled. Thanks were voted to the president and trustees of the Johns Hopkins University for the use of the hall, and to the retiring president (Dr. Chew) and the retiring assistant secretary (Dr. Taneyhill).

Dr. L. McLane Tiffany read a paper on "Malignant Tumors of the Upper Jaw in Youth."

Dr. John Morris submitted the report of the committee to prepare a bill for the Legislature for a system of registration of vital statistics. The committee was continued.

Dr. Chew, from the select committee, reported the fate of the bill to suppress quacks, so-called, which was defeated in the Judiciary Committee of the Legislature.

An amendment to the Constitution was adopted, authorizing the Committee on Ethics to examine into, instead of decide upon, as now, all questions of professional ethics. A resolution was also adopted that one-half the membership fees

be devoted to the use of the library, and that the library committee exchange duplicate books. Adjourned *sine die*.

A special meeting was called immediately after to take action on the disposition of property on Courtland street, and the Executive Committee was empowered to dispose of it.

Book Notices, &c.

Common Mind Troubles, and the Secret of a Clear Head.

By J. MORTIMER GRANVILLE, M. D., M. R. C. S., etc. Edited, with Additions, by an American Physician. Philadelphia: D. G. Brinton. 1880. 12mo. Pp. 185. Cloth. Price, \$1.

Dr. Granville has acquired an enviable reputation in London as a specialist in mind troubles. The treatise before us is rather to be regarded as an abstract of the various lines of thought which have engaged the patient and protracted investigation of the clear-headed author, touching the mental states that lie on the border land of insanity. The object of the writer is to call attention to certain mental failings and troubles which, "unless promptly counteracted, become the forerunners of alienation of mind." Dr. Granville does not regard the mind as "a mere brain function," but holds the doctrine that it is in the compass of the power of the will to control and overcome a large class of the physical ill feelings which are the warnings of insanity, provided the will power is properly directed in the incipient stages of the classes of mental troubles to which he invites special attention. In this classification he mentions "defects in memory," "confusion of thought," "hesitation and errors in speech," "low spirits," and other kindred states of mind. In these, he maintains that the *will* is the first agent in the task of recovery. Man is not a physiological machine, in Dr. Granville's view of the subject; but he believes in the power of the mind over itself; and hence he speaks of self-control and self-government as real and necessary parts of the prevention and cure of mental diseases.

The American editor, in bringing out this edition of Dr. Granville's little work, has well added a few chapters on certain phases of mental troubles not discussed by the author.

Part II of the work is entitled "The Secret of a Clear Head," and discusses temperature, habit, time, pleasure, self-importance, consistency and simplicity, as they stand related to this subject.

The book is not intended so much for the profession as for

the general reader, and is designed as a manual of instruction in the hygiene of the mind. We have read the book with interest and benefit, and commend it to the profession, by whom it should be recommended to suitable patients.

Post-Mortem Examinations, with Especial Reference to Medico-Legal Practice. By PROF. RUDOLPH VIRCHOW, of Berlin Charité Hospital. Translated from Second German Edition by Dr. T. P. SMITH. Philadelphia: Presley Blakiston. 1880. 12mo. Pp. 145. Cloth. Price, \$1.25. (For sale by Messrs. West, Johnston & Co., Richmond.)

In this little hand-book, we find a most concise statement of all that is necessary in making a medico-legal examination. Prof. Virchow remarks that three hours are sufficient—even for the most complicated examinations. The work is illustrated by cases and wood-cuts, and criticizes and explains the regulations which guide German medical jurists in performing autopsies and preparing their reports. Every practitioner should have this book, and follow closely the directions laid down by the illustrious author, whenever called upon to make an examination of the dead body with reference to medico-legal proceedings.

Sea-Air and Sea-Bathing. By JOHN H. PACKARD, M. D., Surgeon to the Episcopal Hospital, etc. Philadelphia: Presley Blakiston. 1880. 16mo. Pp. 124. Price, 50 cents. (For sale by Messrs. West, Johnston & Co., Richmond.)

This is the last of the *American Health Primers*, being edited by Dr. W. W. Keen, of Philadelphia, received. It contains a great deal of instruction for the general reader as to the kinds of baths, directions how to use them, resuscitation of the drowned, etc. It also indicates the location of a great number of popular seaside resorts. Of our favorite, Old Point Comfort, Dr. Packard justly says it is “a place deservedly of high repute as a sanitarium and a sea-bathing place.”

The Causes and Results of Pulmonary Hæmorrhage, with Remarks on Treatment. By REGINALD E. THOMPSON, M. D., Cantab., F. R. C. P., Senior Assistant Physician and Pathologist to the Hospital for Consumption and Diseases of the Chest, Brompton, etc. With Illustrations. London: Smith, Elder & Co. 1879. 8vo. Pp. 135.

Some of the results of our author's observations do not accord with the usually accepted doctrines of the day. But that what is here set forth is entitled to close attention and study is shown by the fact that Dr. Thompson bases his

conclusions upon "the physical examination of over twenty-two thousand patients during their lifetime, and the inspection of three hundred cases of diseases of the chest after the death of the patients."

As a summary of Dr. Thompson's views, he states (1) that bleeding may occur from the lungs without evidence of previous pulmonary disease, or the disease may be so slight as to be out of all proportion to the bleeding. In such cases, there is generally a hereditary or family tendency to bleeding, which may have been accompanied with phthisis in a previous generation. This tendency must be considered as distinct from, and not dependent upon the presence of pulmonary phthisis. (2) Hæmoptysis may be secondary to lung disease. Then the physician should consider how far this is accounted for by the amount of pulmonary disease to be discovered at the time; how far to proximate causes, exertion, alcoholism, etc., how far it may be promoted by hereditary tendency to bleeding. (3.) Hæmoptysis may be considered as occurring after the full development of phthisis. In such case, copious bleeding is of the greatest import, as it then generally occurs as the result of rupture of a vessel of some size. The two last forms of hæmorrhage from the lungs often occur from the ulcerative action of phthisis; but neither the presence of tubercle nor does the tubercular process cause bleeding in any quantity.

We have not the space to follow our author further. We must content ourselves with the simple remark, that as to the diagnoses and treatment of pulmonary hæmorrhage, this is a capital treatise, and thoroughly practical. Numerous colored plates help materially to elucidate the text.

Therapeutics of Gynæcology and Obstetrics, Comprising Medical, Dietetic and Hygienic Treatment of Diseases of Women as set forth by Distinguished Contemporary Specialists. Edited by WM. B. ATKINSON, A. M., M. D., Author of "Hints in the Obstetric Procedure;" Physician to the Department of Obstetrics and Diseases of Women, in Howard Hospital; Permanent Secretary American Medical Association, etc. Philadelphia, D. G. Brinton. 1880. 8 vo. Pp. 365. Cloth, \$3; Sheep, \$3.50. (From Publisher.)

Any one who has received either *Modern Medical Therapeutics*, or *Modern Surgical Therapeutics*, by the late Dr. George H. Napheys, will know what kind of book the one now under notice is, when we say that this is like those books—with only this difference, that Dr. Atkinson's work on *The Therapeutics of Gynæcology and Obstetrics* is more complete. In addition to the therapeutics of the conditions peculiar to women, Dr.

Atkinson gives, in several important instances, the diagnosis of their diseases. As an example of this remark, we would refer especially to the chapter on "Mammary Tumors." This volume is, indeed, only another work of the very valuable "Modern Therapeutic Series," which is being published by Dr. D. G. Brinton—the energetic and capable editor of that most excellent weekly medical journal, *Medical and Surgical Reporter*.

In cases of emergency, or else in cases where one's theories of therapeutics have failed him, when he has to adopt an approved plan of treatment—whether he agrees with the theories of other authors or not—this book will serve an admirably valuable purpose. Frequently practitioners, after having tried and failed with favorite remedies in certain diseases, have to appeal to brother practitioners by asking, "What is good for so and so." The book now under consideration answers such questions for the inquirer, so far as diseases of women, or of obstetrics are concerned. This work is useful and really important to every general practitioner, to whom we unreservedly commend it.

The Skin and Its Troubles. New York: D. Appleton & Co. 1879. 16mo. Pp. 94. Price 50 cents. (For sale by Messrs. Woodhouse & Parham, Richmond.)

This is one of the *Health Primers*, being edited in England by a member of the leaders in the profession. As the title, "Health Primers," would indicate, these little books are intended chiefly for circulation among the more cultivated laymen, who should become as much interested as physicians in the prevention of diseases. The little volume now before us is of interest to a large part of the community, and contains many valuable suggestions for the practitioner.

Principles and Practice of Gynæcology. By THOMAS ADDIS EMMET, M. D., Surgeon to the Woman's Hospital of the State of New York, etc. Second Edition, thoroughly Revised. With 133 Illustrations. Philadelphia: Henry C. Lea. 1880. 8vo. Pp. 875. Cloth, \$5; Leather, \$6. (For sale by Messrs. West, Johnston & Co., Richmond.)

That a second and well-revised edition of this work on gynæcology should be published within a year after the appearance of the first, when scarcely a year passes without the issue of a work on the same subject by some other author, indicates the great esteem which Dr. Emmet enjoys as an authority. In our notice of the first edition about a year ago, we predicted that the book would be well received, and

we have not been disappointed. The present edition contains some twenty more pages than the first. This is not due to the addition of new *chapters*; but many of the unimportant sections in the first edition have been cut out, and new, useful matter introduced; and thus the book has been enlarged and improved. We adhere to the opinion regarding this edition which was expressed in our notice of the first, namely, that this volume is undoubtedly the best text-book, as well as reference book, on gynæcology for the student and practitioner that has yet come under our examination.

Editorial.

Progress of Medical Education in Virginia.—We learn from reliable sources that the Medical College of Virginia and the Medical Department of the University, contemplate a very important and desirable change in their curriculum of study—one which will place their schools in the very front rank of reform and progress, and render them more than ever worthy of public patronage.

In both Institutions, the graded system of instruction will be introduced. The course will require two full sessions of nine months, with an intermediate examination on the elementary branches at the end of the first course. A daily and minute system of questioning on each lecture will compel the student to learn habits of accurate thought; and the final examination, at the close of the second course, will be based upon the standing of the applicant during the whole term. We have neither time nor space now to say more than to endorse heartily this grand reform in our medical schools. The professor, under this long term of nine months, can do full justice to his pupil; and the student having few lectures each day, and kept down to his work by the daily system of question and answer, will find himself at the termination of his collegiate life, a sound and accurate scholar, ready to grapple successfully with his work in the broad fields of medical science.

Thermo-Cautery for Tracheotomy.—We witnessed, with Professor O. F. Manson and Dr. H. M. Taylor, a few evenings ago, the operation, by Prof. Hunter McGuire, of this city, of laryngo-tracheotomy by means of the thermo-cautery knife. All the tissues down to the windpipe were successively and

quickly divided, without hæmorrhage. After the trachea was reached, it was punctured in the usual way by an ordinary knife, and there was no evidence whatever that as much as a drop of blood entered the air-passage. The thermo-cautery knife was kept at a dull-red heat, as cutting with a knife at white heat causes as much hæmorrhage as an ordinary bistoury. Care was taken not to puncture the trachea itself with the cautery-knife, because of the apprehension of the sudden inhalation of too greatly heated air. The opening in the skin was scarcely over an inch in length. The patient was about 17 years of age, and had membranous laryngitis as the sequel of an attack of scarlatina. When the operation was begun, he was nearly unconscious from the effect of the inflammatory closure of the larynx. The operation itself was in all respects a success, although the patient afterwards died of pneumonia. Dr. McGuire himself was so much pleased with this success that he intends to adopt the plan hereafter instead of using the usual cutting instruments for this operation.

Ayres' Hernia Truss.—Since the death of the originator of this truss, which is undoubtedly the best hernial truss in the market, Messrs. Purcell, Ladd & Co., of Richmond, have taken charge of its manufacture, under the special supervision of Mr. W. Ayres Smith. The long association of Mr. Smith with the late Mr. Samuel Ayres, qualifies him, in an eminent degree, to become the successor. This truss, as is well known, is pretty much the only one now used in this community.

Hygeia Hotel, at Old Point Comfort, Va., under the energetic proprietorship of Mr. Harrison Phoebus, has been greatly enlarged and improved, and is now open for the reception of guests. We can say no more of this place as a seaside resort than that it has no superior in this country. Mr. Phoebus, in his arrangements for the present season, has done everything in his power to add to the pleasure and comfort of his guests.

Dr. G. Wm. Semple, of Hampton, Va., we are pleased to learn, will open an office at Old Point Comfort, Va., during the present season, in order to accommodate his numerous friends who visit the Hygeia Hotel, and need his professional services. Readers of this journal need no introduction of Dr. Semple to induce them to lend him the patronage of

their friends and patients who may spend a time at Old Point Comfort.

Messrs. Wm. R. Warner & Co., of Philadelphia, Pa., whose advertisement faces the last reading page of this journal, are worthy of special mention and of the patronage of our subscribers. They are faithful pharmacutists, and prompt in their attention to orders.

The Archives of Laryngology is a new quarterly 96-page journal of great excellence as to matter, editorial management and typography. The first number was issued March 31, 1880, by Messrs. G. P. Putnam's Sons, New York, N. Y. Price, \$1 per number, or \$3 per year. It is edited by Dr. Louis Elsberg, of New York, in conjunction with Dr. J. Solis Cohen, of Philadelphia, Fred. J. Knight, of Boston, Geo. M. Lefferts, of New York, besides nine eminent authorities in Europe in the special field of study indicated by the title of the journal. This first number contains 107 pages, with one lithographic plate and eight engravings on wood.

Bryan's Electric Belt is a recent invention for the treatment of those nervous and chronic diseases which are usually benefited by electrical applications. When applied to the body, the animal heat and moisture causes an electro-magnetic continuous current to be evolved, which is beneficial to an enfeebled system. Electricity, artificially and continuously supplied in broken down conditions of the system, revives the drooping spirits, and increases the circulatory forces; the processes of digestion and assimilation become restored. Bryan's belts are easily applied by the patient himself, supplies a continuous current, and is so highly approved and recommended by the profession generally, that the demand for these belts is very extensive.

Information Regarding Hypodermic Injections of Morphia Wanted.—Dr. H. H. Kane, 366 Bleecker street, New York, N. Y., who has just published a most interesting book on the *Hypodermic Injections of Morphia*, but who contemplates an early second edition, requests answers to the following questions, which we hope all our subscribers will cheerfully contribute to him by manuscript:

1. In how many cases of delirium-tremens, in what doses and with what result have you used morphia hypodermically?

2. Have you used the drug in this manner in acute inflammatory affections of the respiratory organs, and with what result?

3. Have you used it in acute or chronic renal disease, and with what result?

4. Do you know of any deaths due to the subcutaneous injection of morphia? If an autopsy was held, please state the result.

5. Have you had any serious cases of narcotism from the use of morphia in this manner? If so, please state the condition of the pupils, number of the respirations and pulsations, the amount of morphia used, whether there was any known organic disease, and whether there was any opium indiosyncrasy.

6. Have you had any cases where the drug was thrown directly into the blood? What were the symptoms and what the treatment?

7. In what diseases have you used this method of administering morphia, and with what results?

All communications will be considered strictly confidential, and the reporter's name not being used when a request to that effect is made.

The Insane Asylum for Colored People of North Carolina is nearly ready for occupancy. It is located two miles west of Goldsboro. Dr. W. H. Moore, of Goldsboro, has been elected Superintendent. We believe that this is the second asylum in the United States specially intended for the colored people—the first one being the Central Lunatic Asylum, in Richmond, Va.

Obituary Record.

Dr. Benjamin Grigsby McPhail, Acting Assistant Surgeon United States Army, and Post Surgeon Fort Gibson, Indian Territory, died March 10th, 1880, after a protracted illness. Dr. McPhail was born in Scottsville, Albemarle county, Va., November 18th, 1844, and received his education in Norfolk—teaching school for awhile. Following the bent of his inclination, he came to Richmond in 1860, and entered the drug business as a clerk, and rising rapidly, became a partner in one of the most successful drug stores in the city.

At no time in his life robust and strong, his health suffered greatly from the confinement incident to the nature of his occupation. Turning his attention to medicine, he grad

uated with great distinction in the Medical College of Virginia, in 1870. After a successful practice of his profession in this city for three years, where he attained many honors, and amongst them the positions of Deputy Coroner of the city of Richmond, and Lecturer on Materia Medica and Therapeutics, in the Medical College of Virginia, being still pursued by ill health, he resolved to remove to the far West, and with that end in view, accepted a position in the United States Army, which he held, with the exception of occasional visits home, till the day of his death. During this time, in addition to his regular duties as a surgeon and officer of the army, wielding with the greatest ability his pen, he made valuable and rich contributions to general and medical literature, which gained for him an enviable reputation as a writer.

Of popular and engaging manners, he was honored, respected and loved by those who knew him best. A ripe scholar, a talented and gifted physician, a true, a noble, and a generous friend, his loss will be mourned and deeply felt by all.

C. T.

Dr. John A. Field, of Greensville county, Va., died of pneumonia, at his home, January 12th, 1880. He was about fifty years of age. He enjoyed an extensive practice, extending through three or four counties immediately surrounding his own.

Dr. D. Ed. Beall, of Capon Bridge, West Va., died at his home on February 27th, 1880; disease pneumonia.

Dr. H. H. Toland—the surgeon of the Pacific coast—died suddenly at his residence in San Francisco, California, on February 27th, 1880, aged 71 years.

Dr. Matthew Kempf, recently elected Professor of Surgery in the Kentucky School of Medicine, died in Louisville on March 27th, 1880.

Dr. John Neill, Professor of Clinical Surgery in the University of Pennsylvania, and one of the authors of Neill & Smith's Compend, died late in March, 1880.

Dr. Chas. H. H. Sayre, oldest son of the world-famed orthopædic surgeon, Dr. Lewis A. Sayre, died at his home in New York city April 13th, 1880, from the effects of injuries inflicted by a fall. He was about 36 years of age.

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Original Communications.

ART. I.—**Tapping Pulmonary Cavities.** By REGINALD E. THOMPSON, M. D., F. R. C. P., Senior Assistant to the Hospital for Consumption at Brompton, etc., London, England.

The operation of thoracentesis to evacuate fluid from the pleural cavity is a simple one, involving little risk to the patient. The removal of the fluid relieves the patient, gets rid of the peccant matter, if the fluid be pus, and thus conduces to recovery often in a remarkable manner; while the physical problems which have to be considered before the operation is decided upon as likely to affect the issue, are not very complicated, provided fluid be present in the pleural cavity. But when the operation of piercing the lung to tap a pulmonary cavity is under consideration, we have to deal with a more complicated problem, which demands a good deal of careful thought. When fluid is present in the pleural cavity, the tension of the fluid is sufficient to prevent the entrance of air, and there is little risk of artificial pneumothorax; but, as it is almost unnecessary to point out, such a catastrophe will certainly follow the introduction of the trochar into the lung, unless complete adhesion of the pleural surfaces has taken place at the part punctured. This may seem,

at first sight, so very evident as to require no remark on the point, but I have drawn attention to it not without good reason.

Pulmonary cavities may be broadly classed into two groups: those which are found in the upper lobe of the lung, and may be denominated *phthisical*; those which are formed in the base of the lung, and are generally *pneumonic*.

The first group—apical or phthisical cavities—occupy preferably the upper lobe, secrete matter of a peculiar nature, non-fœtid, septic, but seldom distinctly purulent, although, under the microscope, degenerated pus-cells may be found. The peculiar characteristic nature of the matter is shown by its property of producing tubercular infection when locally applied to pulmonary tissue.

The second group—basal or pneumonic cavities—occupy only the lower parts of the lung, secrete a purulent, often a gangrenous matter, sometimes of overpowering fœtor, which, when transferred to other parts of the lungs, results, not in tubercle, but in pus.

The first kind of cavity is invariably associated with firm and complete adhesions of the pleural surfaces in the neighborhood of the cavity.

With the second form of cavity, the adhesions are by no means so complete; bands of fibrin may only tie down the the opposite pleural surfaces, or the cavity may be associated with an empyema and absence of adhesion—a condition by no means rare.

Acting solely upon our pathological knowledge, we might introduce a trocar into an open cavity with full confidence that the firm, chronic pleural adhesions would prevent the catastrophe of artificial pneumothorax; whereas in operating upon basal cavities, we can never be quite certain, either from pathological experience or physical signs, that the adhesions are such as to procure complete obliteration of the pleural cavity, although we may easily satisfy ourselves that the lung is bound down.

To illustrate this point, a case may be quoted which came under my observation some time ago: A patient who was suffering from an empyema and a gangrenous cavity in close

proximity, at the base of the right lung, was operated upon by the introduction of the trochar in the lower part of the right infra-scapular region. As soon as the trochar was withdrawn, the patient, who also had considerable disease of the left lung, collapsed—the symptoms being averted by closing the opening with the finger. The patient died after an interval of two days, and the *post-mortem* examination showed a gangrenous cavity at the base of the lung, the surface of which was separated from the opposite pleura by the intervention of an empyema. The lung was bound down to the diaphragm, but not at the back to the thorax.

But there are other points to be considered with regard to the form of apex and basic cavities, which may help to decide the question as to the nature of cases in which such an operation is justifiable.

Apex cavities are so formed as to have an opening into a bronchial tube at the floor of the cavity. The cavity is above the bronchus—like an ordinary comma (,). Basic cavities are below the bronchus, and resemble the inverted comma ("). Hence, while it rarely happens that an apex cavity accumulates much fluid, except in early morning, on account of matter secreted and not expectorated during sleep, the basic cavity is emptied with more effort, and matter continually accumulates from time to time.

It follows, then, from these considerations, that tapping an apex cavity is not required to drain out matter accumulated in a pouch, inasmuch as this is effectually done by the bronchus; and consequently, as far as I can see, there seems no object in operating on such a cavity, except for the sake of introducing topical remedies. Tapping a basic cavity may, however, be necessary to drain away accumulating secretion; and as the distance from the cavity to the artificial opening is certain to be shorter than from the cavity to the mouth, it may be assumed that the operation will be useful, and the purulent matter more readily removed, and with less effort on the part of the patient.

There is another purpose to be served by opening a basic cavity. It is the free introduction of air into the cavity, and thus to ventilate it and dilute the fœtor of its secretion; and

more than this, the breath of the patient is not fouled and the foetid expectoration is not carried up the bronchial tubes and trachea.

There is still another advantage to be gained by the puncture of a pus-secreting cavity, and it is this: Any one who has been accustomed to examine the lungs of patients who have died from an empyema which has made its way into the lung, or from a gangrenous cavity, must be well aware that almost invariably little deposits of pus are to be found in the opposite lung. As the upper lobe seldom entirely escapes from being affected in some manner, these deposits of pus are usually found at the base of the lung, just above the convex arch of the diaphragm and close to the periphery, or in the anterior axillary line somewhere near the region of the nipple. These are the regions which should be carefully searched during life for physical signs; after death, for pathological indications, to determine how far the sound lung has become infected by the insufflation of the foul, purulent secretion from the opposite (diseased) lung. These localities (and among them may be included the periphery of the lung close to the supra-spinous fossa) are those which I have elsewhere endeavored, by numerous examples, to show are especially liable to become infected with blood residues—the result of insufflation (or inspiration) during an attack of profuse hæmoptysis.

The same rule, in some measure, holds good for pus; but I believe some slight difference may be made in the especial proneness for one locality to be infected with pus or blood, inasmuch as blood is more fluid and abundant, and so more likely to be inspired into the upper lobe; while pus, as being more viscid, has a great tendency to cling to the more dependent parts of the bronchial tubes, and is more affected by gravitation, and consequently the base of the lung is the usual place in which such a secondary deposit of pus may be looked for.

Now, it is quite evident that to puncture a basie cavity is to make an opening which drains the cavity of its secretion, prevents the passage of that secretion along the bronchial tubes and the trachea, and consequently removes all risk of

the sound (or opposite) lung infecting itself by its own inspiratory force with that purulent secretion. This I consider to be a very important service to be obtained from the puncture of a basic cavity.

To sum up the conclusions to which the above considerations point, I would urge

1st. That except for the introduction of local remedies, the puncture of an apex cavity can hardly be expected to lead to any good result.

2d. That the puncture of a basic cavity is demanded if the secretion be fœtid, provided there are reasonable grounds for supposing that the pleural surfaces in the neighborhood of the cavity are sufficiently adherent to prevent artificial pneumothorax.

3d. The advantages to be gained by the operation are the ventilation of the cavity and the diminution of fœtor, and especially the prevention of matter passing over to, and infecting the sound lung.

ART. II.—**The Nature and Action of the Causes of Dyspnœa in Pneumonia, Otherwise than Hepatization, and their Specific Treatment.** By BEDFORD BROWN, M. D., Alexandria, Va.

The function of respiration may be affected very differently in individual cases by the same extent of consolidation of pulmonary tissue in pneumonitis.

The consolidation of one-half or three-fourths of one lung, may, in one patient, prove the cause of no serious disturbance of respiration, while the same extent in another case, would be attended with an extreme degree of dyspnœa. Again, a very limited pneumonitis which, in one person, would scarcely elevate the respiratory rate above the healthy standard, may, in others, cause serious respiratory embarrassment.

These facts, which are familiar to all medical men, would indicate that the symptom of dyspnœa to which we attach so much importance in our prognosis, and as a guide to treatment in pneumonia, does not always correspond in

degree with the amount of tissue involved in the process of hepatization, but that other causes are also operative for its production, the nature and action of which are necessary to be clearly comprehended.

The importance of dyspnœa in pneumonia, in these particulars as a symptom, cannot well be over-estimated. No fatal case of pneumonia has ever come under my observation which was not characterized by the most distressing dyspnœa.

Prolonged and close investigation of the subject of dyspnœa, convinces me that it is not a simple result only of mechanical obstruction of a certain set of air cells, but that really the causes of this symptom are rather of a complex character, and are most intimately associated with the disordered functions of both the heart and lungs. As a confirmation of this statement, we know that with a sound heart acting with perfect rhythm, slowly and forcibly in pneumonitis, though very considerable consolidation of lung may exist, there will generally be but slight resulting dyspnœa. On the contrary, if, in pneumonia, the heart acts irregularly, feebly, and with unusual frequency, though the area of hepatization may be moderate in extent, there will almost of a certainty be troublesome dyspnœa.

In health, the respiration rate varies from nineteen to twenty-one per minute, while the pulse rate also varies from sixty to seventy per minute. This is the normal pulse-respiration ratio or equilibrium. There are also *abnormal* pulse-respiration ratios. For instance, when the rate of cardiac action rises to one hundred and twenty-five, probably the respiration rate will, of necessity, also rise to forty or more. This is an abnormal pulse-respiration rate. Thus it is just as essential that this equilibrium should be maintained in disease as in health, by the adaptation of the rate of respiration to that of the heart. The latter follows the former invariably in the process of adaptation.

When hepatization has been fully established, the pulmonary circulation is absolutely suspended through the consolidated portion of lung. It is positively cut off from that avenue. Therefore all the blood of the entire system must

pass through the pulmonary vessels of the healthy portions of the lungs. This, of course, creates a necessity for an increased number of inspirations per minute, to compensate for the diminution of pulmonary capacity, and also for the increased pulse-rate.

So long as the column of blood from the right side of the heart can pass to the left, regularly, evenly and continuously, admitting sufficient air for its oxygenation into the lungs, there need be only a few additional inspirations per minute, to compensate for the loss of breathing space. But when there is a failure to do this, either from inadequacy of cardiac power, or from excess of that power, or from some intervening circumstance, as œdema, excess of bronchial accumulation, and more venous blood accumulates in the healthy lung tissue than can pass to the left side, then true dyspnœa begins, with all its train of distressing consequences. So there is a marked distinction to be drawn between the labored breathing of true dyspnœa caused by a sense of impending suffocation, and the simple acceleration of respiration necessary to meet the new rate of cardiac action. The action of those remarkable cardiac sedatives, veratrum and aconite, serves to illustrate this question in an interesting manner.

The primary therapeutic influence here is on the action and rate of the heart. When these have been reduced to within an approximation of the normal standard, though extensive pneumonic hepatization may exist, the respiration rate will surely fall correspondingly—the two keeping pace, as closely as in the abnormal rise.

ŒDEMA OF THE LUNGS IN PNEUMONIA A CAUSE OF DYSPNŒA.

Œdema of the pulmonary tissue is a very common factor in the causation of dyspnœa in this affection. To some extent, it doubtless exists in a majority of cases; but, in certain instances, it becomes excessive, when it proves a dangerous obstacle to respiration.

The forms of pneumonitis most prone to pulmonary œdema are the typhoid, malarial, and those cases associated with great blood impoverishment, as in anæmia and uræmia, the poisoning of pyæmia, and lastly, in mitral disease.

In malignant typhoid, and malarial pneumonitis, œdema-

tous effusion in the pulmonary tissue is often so sudden, rapid and overwhelmingly extensive as to cause the most alarming dyspnœa, and not unfrequently a suspension of respiration within a few hours after the first onset. This condition of affairs is not unfrequently confounded with active congestion, and the error is often acted on. In these cases, the primary effect on the pulmonary circulation is obstruction, then passive engorgement of the pulmonary circulation, excessive accumulation of venous blood in the right ventricle and auricle, and finally in the entire venous system, causing not unfrequently thrombosis of the pulmonary artery. We have here a state of affairs co-operating for the production of dyspnœa, more exquisitely painful and alarming than in almost any other form of this disease.

No one can witness such scenes as these cases present without appreciating the importance of the subject of its various causes, its serious bearing on the course and termination of pneumonia, and without entertaining a deep and earnest desire to afford relief from the suffering and danger which it entails.

SPECIAL TREATMENT OF PULMONARY EDEMA.—In the treatment of this condition of the lung, the combination of infusion of digitalis in full doses, with the tincture of the chloride of iron, and infusion of ergot, constitutes a valuable and efficient means of removing the effusion, and of improving the general state of both the circulation and blood. To this may be added, to render the diuretic action of the treatment more decided, the liquor ammoniæ acetatis. The value and efficiency of these remedies depends very much on their frequent repetition.

The application of revulsives, in the form of extensive dry cupping, and, if necessary to procure relief, over the entire chest, and, indeed, over both the diseased and healthy lungs, when œdema is excessive and the dyspnœa is very great, is invaluable. This remedy is equally applicable to the treatment of all the various conditions causing dyspnœa. Its action in relieving distressing dyspnœa under these circumstances is often prompt and speedy. Forty or fifty dry cups applied over the chest, produce enormous dilatation of cuta-

neous and subcutaneous capillaries and arterioles, which, when considered in the aggregate, constitutes a very extensive temporary diverticulum, capable of retaining, for some little time, a pound or more of blood, which forms a freer and larger channel for the diversion of blood, which it is desirable to save, from the internal and now embarrassed channels. It is remarkable how long this extensive dilatation of these external vessels will continue to invite this free and abundant supply of blood to themselves from the internal organs.

All are familiar with the troublesome and excessive hæmorrhages which a few dilated capillaries of the mucous surface will cause by creating a new and free channel for the circulation. The principle of action of this remedy is very similar. This diversion of a large portion of blood from the internal circulation to the external by dilating the arterioles to two or three times their natural calibre, relieves the right ventricle from much of its labor in these cases, and the pulmonary circulation from its overloaded condition, and, in part, from the danger of thrombosis.

EXCESSIVE MUCOUS ACCUMULATIONS AND BRONCHIAL PARALYSIS AS A CAUSE OF DYSPNŒA.—Bronchitis as a complication of acute pneumonitis, is not unusual. In many of this class of cases, the mucous secretion is copious and rapid. The accumulation in the bronchial tubes is greater than its expulsion by cough. This accumulation continuing to increase, dilatation necessarily follows, terminating ultimately in complete relaxation of the bronchial tubes and bronchial paralysis, with a very dangerous state of insensibility, or anæsthesia of the respiratory system of nerves, and those of the vasomotor system distributed to the lungs. Under these circumstances, cough and expectoration either decline or cease entirely.

In this class of cases, bronchial occlusion from mucous collection and paralysis is, if extensive, fraught with extreme danger, and is always the cause of intense dyspnœa. When perfect occlusion of a bronchial tube from the presence of a mucous plug occurs, the venous blood in the pulmonary capillaries distributed over its mucous coat, remains fixed,

and consequently charged with carbonic acid gas. This poison acts the part of a sedative on the respiratory and vaso-motor systems, as potent as aconite or veratrum, producing a state of anæsthesia, and ultimately paralysis of the muscular structure of the bronchi.

We often see grave cases of pneumonitis, in which there are extensive moist bronchial râles with very labored breathing, much lividity of complexion, frequent, feeble pulse, with either very inefficient cough or its entire absence. While the râles are often loud and noisy, the patient is partially insensible to suffering, except from difficult breathing. Without prompt relief, these cases go on from bad to worse, the mucus accumulation in the bronchial tubes, dyspnœa and lividity continuing to increase, while the cough is not only suppressed, but the patient feels no desire to cough, and but little pain or inconvenience. In truth, at this stage of the case, there is a universal state of anæsthesia pervading not only the vaso-motor and respiratory system of nerves, but also affecting those of sensation and volition through the great nervous centers, from the presence of carbonic acid gas—an anæsthetic as effective, and far more deadly, than chloroform. Here is a cause of dyspnœa which must and will come under the observation of every practical physician.

TREATMENT OF BRONCHIAL OBSTRUCTION AND PARALYSIS. There are two leading objects to be accomplished in treating these conditions—one, to stimulate bronchial action and relieve paralysis; the other, to remove excessive accumulation.

In relaxation of the bronchiæ and loss of sensibility, with defective expectoration when the mucus secretion is copious, but thin, inconsistent, and not tenacious, the free administration of nitric acid, combined with minute quantities of nuxvomica and ipecac, constitute the most potent means of exciting bronchial expulsive action, and correcting this state of paralysis, which we have. The ipecac acts on the muscular coat of the bronchial tubes as a stimulant, causing active contraction and expulsion of contents. In this manner, cough and expectoration may be restored under almost hopeless circumstances. When this relaxation extends to the general system, and there is universal prostration and a ten-

dency to debilitating perspiration, sulphuric acid and belladonna may be added to the treatment with advantage. When the mucous secretions are of the characters spoken of, the mineral acids are specially adapted. On the contrary, when they are tenacious and adhesive in character, the acids are injurious, and the alkalies, particularly the preparations of ammonia, are peculiarly useful, as solvents, to aid in their expulsion. By the use of acids, we desire to curtail and diminish those copious secretions which endanger life by quantity. Hence, they are useful in a condition the opposite of that of the sthenic type, and are, therefore, only suited to states of debility and relaxation.

When the bronchial tubes are overloaded with thick, tenacious and adhesive mucus, while in a state of insensibility and paralysis, with inefficient cough, distressing dyspnœa and lividity of complexion, we must introduce an agent which can act as a solvent of this tenacious material, and, at the same time, means to stimulate the dormant nervous powers concerned in the process of respiration, to expel the cause of obstruction. The alkaline agents, carbonate of ammonia and bicarbonate of soda, in combination with the wine of ipecac and tincture of nux vomica, unite all the medicinal properties requisite for these purposes. If the administration of ipecac is commenced in small doses and progressively increased, the stomach becomes to tolerate very large quantities of the remedy, which acts decidedly and efficiently in connection with the other agents in causing free expectoration and the re-establishment of cough.

WEAK AND IRRITABLE HEART FROM NATURAL CAUSES THE MEANS OF PRODUCING DYSPNŒA IN PNEUMONITIS.—The natural strength of the muscular structures of the heart, and its force of contractile power, differ very widely in different individuals, without actually being a condition of disease. In many constitutions, the cardiac muscle is so attenuated in structure and feeble in action as to place the subject at decided disadvantage in an acute attack of pneumonia.

Much, in pneumonia, depends on a strong, forcibly-acting, non-irritable right ventricle, with a steady and regular contractile power. Females and feeble men proverbially do not

resist attacks of pneumonia as well as strong males. It grows out of the fact that the muscular structure of the heart in the former is weaker than in the latter, and the nervous powers also more feeble.

Just in proportion as the heart, in its organism and function, diverges from the average standard of strength, will there be difficulty, in the event of an attack of pneumonia, in sustaining the regularity of the pulmonary circulation, and in equal ratio will there be embarrassment of respiration. Thus, it is not difficult to understand why it is that in the case of two individuals with the same extent of local disease—one having a strong, non-irritable, slowly-acting heart, the other having a feeble, attenuated, excitable organ—the former will suffer so little and the latter so much from dyspnœa in pneumonia.

Probably one of the best evidences of cardiac weakness in pneumonia, is inordinate frequency of action. Just in proportion to the increase of frequency of action is there loss of strength and power. A heart acting at the rate of one hundred per minute, cannot sustain a column of blood, or, in other words, the body in a perpendicular position and the respiration at a normal standard, as long as one acting at the rate of seventy. In proportion also as the ventricular contractions gain in frequency and lose force, the power to sustain the pulmonary circulation declines, while venous blood accumulates in the lungs, causing extreme dyspnœa. Thus, when the rate of ventricular contraction reaches one hundred and thirty or forty per minute, they become so feeble in propelling force that the right ventricle fails to force the pulmonary circulation through, while the left ventricle, in not receiving its accustomed supply of oxygenated blood, fails to throw the arterial column with sufficient force to the systemic capillaries.

In this way, there is inordinate accumulation of blood in the entire venous system, and, consequently, excessive disturbance of respiration, with dyspnœa.

Now if, by any means, the rate of cardiac action can be restored to seventy or eighty in rate per minute, without impairing ventricular power, we will not only observe the capillary circulation moving on regularly through the pulmonary

vessels, but blood aeration will be restored, and all dyspnœa relieved.

TREATMENT OF DYSPNŒA CAUSED BY WEAK AND IRRITABLE HEART IN PNEUMONIA.—The most important considerations for the relief of this condition are to slow the inordinate frequency of the heart's action, and at the same time not only not impair its force, but actually to increase cardiac power. The right ventricle, which, in these cases, makes extraordinary efforts to propel the column of blood through the obstructed lungs, being unequal to the task, becomes enfeebled, exhausted, and exceedingly irritable. To impart the wanted power of contraction, and to lessen irritability, we have at our command active agents, which exert an exceedingly energetic influence on the vaso-motor system—both having a tonic and sedative influence on the heart. These agents are digitalis, belladonna and nux vomica. By this combination, with the aid of stimulants and nourishment, the excessive action of the heart may be reduced to the normal standard, while the right ventricle receives ample power to sustain the pulmonary circulation, until resolution has been accomplished.

SOFTENING OF THE MUSCULAR STRUCTURE OF THE HEART A CAUSE OF EXCESSIVE DYSPNŒA IN PNEUMONIA.—Softening of the heart of an acute character is a far more frequent complication of pneumonia than is usually supposed. It may exist only in a slight or partial degree, when the muscular structure of the organ has lost but little of strength and elasticity, or it may pervade the muscular fibres to such an extent as to render them entirely friable, so as largely to deprive them of their contractile power. This condition of the heart, in various degrees of intensity, is not an unusual accompaniment of the malignant and adynamic types of pneumonia, and in all cases wherein there is a depreciated state of the blood.

Under these circumstances, the ventricular walls are greatly enfeebled, and rendered far less capable of forcible action or prolonged exertion under excitement, or when called upon for the performance of unusual labor, as may be required to

sustain the pulmonary circulation through the diseased lung. Attenuation and dilatation of the cardiac walls may prove an additional complication. Softening of the heart in pneumonia presents characteristics very similar to the same condition in typhoid fever. Cardiac action is exceedingly rapid and feeble. There is usually absence of impulse, or, if present, it amounts to a mere vibratory thrill. The systolic sound is generally absent, or very indistinct. Dyspnœa is always very distressing in these cases. The tendency to asphyxia is decided, as indicated by the lividity of complexion and tongue.

When the rate of cardiac action reaches one hundred and forty, the two sounds are merged into one—the systolic being lost. The respiration not unusually amounts to sixty per minute. In this class of cases, the equilibrium in the circulation between the arterial and venous systems is, for the time, lost—the larger proportion of blood accumulating in the latter, while the former is deprived of its proper supply.

The walls of the right ventricle, upon the vigor of which everything depends in pneumonia, contract rapidly, but with exceeding feebleness and inefficiency. That peculiar spiral character of ventricular contraction, which is prolonged, forcible and effective in propelling the column of blood onward through the lungs from the right to the left side of the heart, is lost, and there is substituted in its place a contraction which, from loss of power and excessive frequency, becomes concentric in character. In this manner, the right ventricle becomes incapable of fully sustaining the pulmonary circulation, while the process of engorgement progresses, causing the most intense degree of dyspnœa.

TREATMENT OF DYSPNŒA FROM CARDIAC SOFTENING IN PNEUMONIA.—The primary object in these cases is to slow the rate of cardiac action, and at the same time to strengthen the power of ventricular contraction, by the influence of those tonics and sedatives which act on the heart through the vaso-motor systems. The infusion of digitalis and tincture of nux vomica, in combination, will accomplish that

object better than almost any other agents, particularly when associated with nourishment and diffusible stimulants.

For the permanent improvement of the condition of the blood, which is always depreciated in these cases, the nutrition of the tissues of the heart, and the restoration of its impaired forces, the tincture of the chloride of iron, the solution of the acetate of ammonia, and arsenic, in the form of Fowler's solution, are all valuable. It will be seen that in the treatment of dyspnœa arising in this connection, we must look really more to the state of the heart and its action than to that of the lungs. As a rule, in these cases it will be found that in proportion to the restoration of the action of the heart towards a healthy standard of force and rate, difficulty of respiration will decline, and the case progress favorably.

In regard to the specific action of digitalis on the heart, there can be no doubt that it is directed with as much, if not more, force to the right ventricle than the left. This is clearly illustrated by its action in cases of excessive mitral constriction, with pulmonary engorgement and dyspnœa. Here the dilatation, impaired power and enfeebled action, and, not unfrequently, softening of tissue, are confined to the right ventricle. The digitalis, by its tonic and regulating influence on this ventricle alone, enables it to propel the pulmonary circulation through the constricted mitral orifice, relieving the engorgement and dyspnœa. By this influence, the right ventricle has acquired the additional force necessary to overcome the forward obstruction. This is a simple example of the action of the same therapeutic agent in the softened and impaired condition of the right ventricle in pneumonia, with excessive difficulty of breathing.

UNEQUAL ACTION OF THE RIGHT AND LEFT VENTRICLES A CAUSE OF EXCESSIVE DYSPNŒA IN PNEUMONIA.—In violent attacks of acute pneumonia of a genuine sthenic type, when the right ventricle, acting with inordinate power, and at an increased rate of frequency, propels with greater rapidity a much larger amount of venous blood into the pulmonary vessels than they can carry through into the left auricle, there results a highly deceptive state of affairs. In these cases, by excessive

action of the right ventricle, the cardiac impulse becomes exceedingly violent and forcible; the dyspnœa is very great, and the temperature high; while the radial pulse, though accelerated, is apparently, in its softness and feebleness of character, entirely disproportioned to the violence of type of the other symptoms. In such cases, there is active and extreme engorgement of the pulmonary circulation; and in a former generation, when phlebotomy was fashionable, medical men were wont to bleed, knowing that in proportion as venous and pulmonary congestion was relieved, that there would be developed strength and force in the radial pulse.

TREATMENT.—In this class of cases, the action of those cardiac sedatives—aconite and veratrum viride—by their direct and prompt influence on the inordinately excited right ventricle, slows and regulates its action towards a normal standard, permits the congested lungs to disgorge their excess of blood, and the left ventricle to receive its full share of the circulating current. In this manner, while the violence of cardiac impulse and excitement are allayed, the dyspnœa is relieved, and the pulse is both slowed in rate and increased in force. In weak and irritable hearts and in softening of the heart, inducing impairment of its force in pneumonia, attended with dyspnœa, we need a cardiac slower, with tonic powers, as digitalis, to reduce frequency of action and give ventricular strength. In violent action of the organ with too much power, but also dangerously affecting the respiration, we need also a cardiac slower, but with sedative properties, as the aconite.

ART. III.—**Stuttering and Stammering.** By L. ALONZO BUTTERFIELD, Professor of Vocal Physiology and Mechanism of Speech, in the Boston School of Vocal Physiology, and Late Teacher in the Boston University School of Oratory, Boston, Mass.

Those who have never had intimate acquaintance with the stammerer, can hardly estimate the extent of his misfortune, or entertain a just conception of his social deprivations; and no one who has not been a stammerer himself, can fully real-

ize his personal anxiety, mortifications and discouragements. In early childhood his impediment has often been made the subject of amusement and ridicule, and thus his most delicate sensibilities have been stunted and blighted. He is often blamed by parents, teachers and friends, for a habit over which he has no control, and the nature of which is, to him, a perfect mystery. At school, his impediment is sometimes made the object of special observation and retaliation by his playmates. Harsh treatment and punishment can only aggravate the difficulty, and hasten its development to the most serious results. The stammerer is, to a great extent, shut out of society. He becomes bashful and sensitive, and suffers much from a lack of confidence in himself. He sometimes dreads to meet his friends in society, lest he shall make a bad exhibition of his speech in conversing with them. He is liable to stammer most in speaking with strangers, especially if he is anxious to conceal his difficulty.

The cause and nature of his impediment has been comparatively little understood. Medical men have done little to benefit this unfortunate class of sufferers. This is due mainly to the fact that much confusion and ignorance has prevailed as to the nature and causes of the difficulty, and to the oft-repeated failures in the application of the surgeon's knife. The difficulty has, in many cases, been treated as organic. The knife has been applied in the most barbarous manner; the tonsils and uvula have been removed; the tongue has been mutilated without mercy, and all to no benefit—the difficulty being beyond the reach of these measures. Fortunately for those suffering with speech-impediments, this barbarous and ignorant mode of treatment has nearly disappeared from medical practice; yet the idea prevails, to a great extent, that the difficulty is organic.

So little real benefit has the stammerer received at the hands of science and the medical profession, that he has been especially liable to the impositions of quackery. Itinerant stammer doctors and third-rate elocutionists have infested nearly every large town and city, deluding hundreds of unfortunate stammerers, who are ready, at the first ray of hope, to try almost anything that promises relief. This practice

has usually been done in secret. The victim pays the fee of fifty or one hundred dollars, and is bound by an oath never to reveal the secret by which he was cured (?) of his difficulty. In some cases, temporary relief has been effected and some benefit realized; but in far the greater number of instances, those who have fallen into the hands of these charlatans, have only been doomed to sad disappointment, excited by inflated promises never to be realized. Like some patent medicines, this practice may give temporary relief to a few, while the many may be seriously injured by it. Many who have taken the oath never to reveal the secret, have felt it a duty to expose these impostors, and have made known the process to their friends. All of these secrets are generally known by those who have had practical experience in the treatment of speech-impediments. Some of these magic arts are simple practical exercises in controlling respiration and vocalization, but more of them are mere tricks of delusion. It is possible for one to be temporarily relieved without being benefited. So long as one is under the impression that he has been really cured, and under the direct stimulus of the operator, he may be quite free; but he is liable at any moment to stammer, and when he does so, he becomes worse than ever.

A young man who thought he had been cured by this speedy process, met his friend James, who also stammered. Says James, "Good morning, Fred, where have you b—b—bin since I m—m—met you at—t—t—" "Why, James, how you stammer! Why don't you g—g—go to the man that c—c—cured me?"

IMPEDIMENTS OF SPEECH.—Lisping, indistinct articulation, and such minor defects of speech, are by some thought to be a species of stammering, and have even been treated as organic difficulties. They are not of the nature of stammering at all. An incorrect action or position of the tongue or lips is substituted for the correct, and all that is necessary to obtain a perfect articulation of the defective elements, is to show clearly what is at fault, and direct the attention to the proper positions of the organs, for the production of the desired elements of speech.

A young lady in the senior class of one of the oldest seminaries of New England, came to me for treatment of defective speech. The difficulty was a kind of lisping, a hissing effect of the letter S, and the inability to articulate the consonant R. Ring, run, rock and such words were hardly intelligible. This defect of speech she had had from her childhood. Her hope of relief seemed very faint, and she was not a little skeptical as to the possibility of gaining the power of properly articulating the affected elements. The family physician had pronounced her case incurable. He said her tongue was too large, and that nothing could be done to remedy this. I said to her, "I know without looking in your mouth that your tongue appears very thick to the eye. The muscles of your lips and nose are quite thick. Your whole muscular system is of a thick, chubby nature, quite in contrast with the thin lips, sharp nose, and pointed fingers of some members of your class. Your tongue will be correspondingly thick." Her tongue was quite thick, presenting a large appearance in the mouth, but it was not larger than nature designed; it was none too large for a free and perfect articulation. I directed her attention to the mechanism of the elementary sounds, taught her how to place the tongue to produce the desired results. She produced the correct sounds at once, and in a short time was able to give them with ease. Such imperfections of speech are defects of articulation merely, and can readily be corrected by a knowledge of their mechanism. A knowledge of *Visible Speech* will enable any one easily to remove all defects of this kind.

DEFINITIONS OF TERMS.—What we would define as real impediments of speech, are what Prof. Alex. Melville Bell calls Stuttering, Spasmodic Hesitation, and Convulsive Stammering.

The terms stuttering and stammering are, in general, used indiscriminately to denote any difficult impediment of speech. Webster and Worcester's dictionaries give the terms as synonymous, without the slightest shade of distinction. Some writers have defined the term stuttering as the inability to vocalize, and stammering as the inability to articulate the elements of speech. What these writers call stammering,

others call "mouth-stammering;" and what these writers call stuttering, others call "throat-stammering;" and, if we understand the writers, the latter terms are more practical than the former; for what is usually called the want of power to vocalize, is the closing of the vocal chords with great pressure before attempting to produce a vowel, in the same manner as the lips are pressed in attempting to utter a syllable beginning with a lip consonant. This mouth-stammering and throat-stammering is one and the same thing in nature, whether the spasmodic catching and holding of the organs is apparent in the mouth or in the throat. We might say lip-stammering, point-of tongue-stammering, back-of tongue-stammering, and throat-stammering, according as the lips, point of the tongue, back of tongue, or vocal chords are shut with pressure and appear as a formidable impediment of speech.

Many vague and indefinite attempts have been made to define the terms stuttering and stammering, according to certain phenomena or accompanying diseases in different cases, so that there is still much confusion in the matter. Medical and scientific men of the present time have been left to define their own use of the terms. It does not matter so much how we use the terms as that we make ourselves understood.

When sounds or syllables are repeated again and again, before the next sound can be formed, there is an impediment of speech which we term *stuttering*. This impediment is comparatively easy to remove in most cases. When there is a slight choking effect, or a slight effort as if to produce a consonant element with an impeded action of respiration, sometimes accompanied with a slight tremulousness of the chest, there is an impediment which we term *spasmodic hesitation*. When the articulating organs of speech close the mouth and throat passage, either at the lips, at any part of the tongue, or at the vocal chords, and are held with intense pressure, as if trying, with great effort, to produce speech, there is an impediment which we call *stammering*. Stammerers are often troubled with stuttering and hesitation before they become stammerers.

ORIGIN AND CAUSES.—Stammering generally originates in infancy or childhood. There are comparatively few stammerers who did not stammer before they were ten or twelve years of age. Stammering, as such, is a habit which becomes confirmed by continued practice, and which may be overcome with comparative ease, if properly treated and cared for before it becomes rooted in the nervous system.

Quite a large percentage of stammerers that have come under my observation, have formed the habit directly by imitation. The child of English parents speaks English because his parents speak English. The child of French parents speaks French because his parents and early associations were French. The child speaks correct or faulty English, French or German, in proportion as he habitually hears correct or incorrect pronunciation, copying the faults as readily as the excellences in the speech he hears. Some people seem to imitate imperfections in speech more easily than good articulation. A child is liable, by constant association with a stammerer, to imitate his defects, and become a stammerer himself.

I have known boys to become confirmed stammerers by contemptuously imitating an aged stammerer. Prof. Alex. Graham Bell gives the following incident of a boy brought to him for treatment: The boy had become a stammerer himself by imitating an aged stammerer. He was much troubled in his mind about attempting to overcome his difficulty, lest in so doing he should sin against that Providence he thought had sent his impediment of speech as a just punishment for his wickedness in mocking the old gentleman.

It is a very noticeable fact that stammerers are apt to stammer their worst when they hear another person stammer, and especially if they attempt to talk with one who stammers.

I have known cases where stammering has been in a family for several generations. It has not yet been satisfactorily demonstrated whether this congenital stammering is physiologically the result of the stammering in the parent or not; but I am strongly of the opinion that it is due solely to imitation, the same as the incorrect and affected articulation of the family; and that any abnormal condition of the nerves and muscles may be the result of the habit of stammering in

each individual case. Yet it is quite possible for this tendency to the habit of stammering to be transmitted directly from parent to child. Congenital stammerers often overcome their impediment of speech by proper instruction and training, without medical treatment, as readily as any other class of stammerers.

When a child imitates another stammerer, his tongue, lips and vocal chords stammer directly in obedience to his will; but this attempt to imitate causes the abnormal action of the diaphragm, and his diaphragm also stammers. He at once forms the habit of stammering in his respiration. This cannot long be continued without the habit being fixed, and the abnormal action of the diaphragm becomes automatic, and he finds, at last, that he cannot discontinue the habit. One cannot long continue any abnormal action without creating abnormal conditions of the nerves.

Scarlet fever, diphtheria, etc., sometimes leave a child with a tendency to stammer. The child acquires the habit of a spasmodic abnormal action of the diaphragm in attempting to talk before he has gained sufficient vital and nervous force to give the diaphragm and other muscles of respiration their proper conditions and motions. The chest seems to collapse; the diaphragm prematurely contracts and descends, which stops the outward current of breath, and the child is unable to produce voice. The vocal chords, unable to vibrate, close the throat entirely; the articulating organs adjust themselves; in the vain attempt to produce the elements of speech, great exertion is put forth, and the organs close with intense pressure. The greater the effort, the more convulsive the stammering. This is repeated from time to time, and the habit grows upon him until it becomes confirmed.

When the breath-current stops just as the attempt is made to produce a syllable beginning with a vowel, the vocal chords shut, and produce what has been termed by some, vowel or throat stammering; when the breath-current stops at the point of articulating a consonant or a syllable beginning with a consonant, as p, b, t, etc., the lips or tongue shut the mouth-passage, and this has been termed mouth or consonant stammering.

Vowels, like consonants, depend primarily, in mechanism, upon the adjustment of the tongue and lips, and not upon the larynx or vocal chords for their individual vowel character. To be sure, voice is more prominent in vowels than in consonants. This is because the adjustments of the organs for the production of consonants are close, and obstruct the free emission of breath or sound. But vowels do not depend upon vocalization for their individual vowel character; in fact, in some languages, we find breath-vowels, or a syllable without any vocality, the vowel forming the basis of the syllable being the same as an English vowel in character, only aspirated instead of vocalized.

What has been termed vowel stammering might be called consonant stammering in the throat—the shutting of the vocal chords before the vowel. This action of the vocal chords is in nature a consonant, and appears as a consonant element of speech in some languages; when placed before a vowel, it gives a similar effect to a syllable as does *p*, *t*, or *k* before a vowel. A simple cough illustrates the closing and opening action of the vocal chords.

Scrofula has been thought to be a cause of stammering. It is not directly a cause, though it may aggravate the difficulty and impede the progress of the individual in overcoming his impediment. The sympathetic nerve governs the action of the diaphragm. If the sympathetic nerve be weakened by any cause, the power of the individual over the diaphragm will be correspondingly weakened, and hence the action of the diaphragm will be liable to become spasmodic. According to the opinion of some eminent modern scientists, scrofula is caused by the nerve-force being in a low or weakened condition. Scrofula and stammering both may be readily developed when there is a weakened state of the nervous system; hence it is easy for some people to associate scrofula with stammering, and to infer that the scrofula causes the stammering. If the theory of these scientists is true, the effect of the stammering upon the nervous system may be more likely to cause scrofula than scrofula to cause stammering.

Stammerers are often very nervous, and exhibit a great

deal of agitation when they attempt to speak. Nervousness, in a greater or less degree, aggravates the difficulty in all cases of speech impediments. Nervousness is not the cause of stammering, as parents often suppose; but it would be more correct to say that stammering is the cause of the nervousness. Remove the stammering, and the nervousness will, to a great extent, readily disappear. When the stammerer goes into society, he often has a feeling of anxiety; he has great fears lest he shall stammer when he most desired not to do so. Very few people could go into society with the stammerer's impediment without great anxiety and a chronic state of nervousness resulting.

One cannot long stammer in his respiration or in his articulating organs without impeding, to some extent, the actions of the mind (though in some cases hardly perceptible), and the mind also stammers. Whether the impediment is, to the close observer, most apparent in respiration, in the articulating organs, or in the mind, its nature is the same and should be treated as such. As a principle in art, no actor or orator can express genuine thoughts and feelings in his countenance and attitudes without corresponding inward thoughts and feelings.

TREATMENT OF SPEECH IMPEDIMENTS.—Stammering, whatever may have been its cause, should be treated as an impediment of speech; and accompanying diseases should be treated medically as diseases, except where the disease is directly the result of stammering, in which case, if the cause be removed by correcting the impediment of speech, the disease, if not too formidably developed, will readily disappear.

A case of simple stuttering may usually be removed by the practice of a firm and steady articulation and the cultivation of a clear and full voice, with a deliberate use of the same. A case of hesitation merely requires little more for its removal than knowledge of the actions of respiration and practical exercises for their control, and a knowledge of the mechanism of the elements of speech, with discipline in their utterance, singly and in combinations. Spasmodic hesitation is practically a mild form of stammering. It is that form of impediment that frequently manifests itself before convulsive

stammering becomes a habit. I have observed those who would, for a time, exhibit the peculiarities of hesitation in their speech after the more formidable impediment of stammering had been entirely removed, thus retracing their path of progress in speech impediments—this hesitation appearing the same as that which manifested itself in the child before the habit of stammering was formed. In some cases they were not conscious of their frequent hesitation, it was so slight an impediment in comparison with their former stammering. The most difficult of speech-impediments is that form we call convulsive stammering.

In the treatment of stammering, the first step to be taken is to correct the faulty habits of respiration, and establish a free, deep and natural breathing.

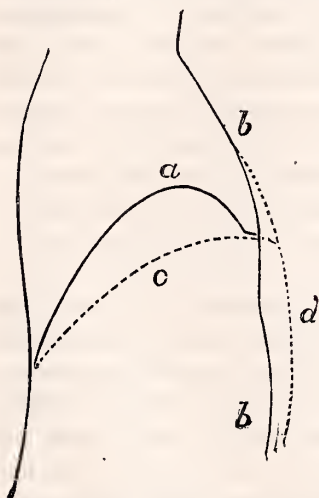


FIG. 1.

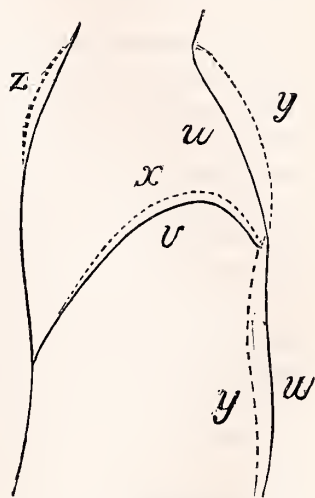


FIG. 2.

In Fig. 1, the lines *a* and *b* represent the relative positions of the diaphragm and the front movable wall of the body, after breath has been expelled. Immediately thereafter the waist expands at the base of the lungs and the diaphragm descends. The lines *c* and *d* represent the relative positions of the diaphragm, chest and abdominal wall after the act of inhaling.

Most stammerers, like many others, reverse these motions and positions in the act of respiration. In the act of inhal-

ing, the upper portion of the thorax is expanded, the abdomen is drawn in, and the diaphragm, being comparatively inactive, is slightly raised.

Fig. 2 shows this reversed and abnormal breathing. The lines *v* and *w* represent the relative position of the diaphragm, chest and abdominal wall before inhaling. The lines *x*, *y* and *z* represent their relative position after inhaling. When an attempt is made to inflate the lungs to their full capacity, the chest and shoulders are raised, as though it required great physical effort to breathe. This raising of the chest and shoulders is one of the most common faults in breathing.

A large supply of fresh air is of vital importance, and a free and elastic use of the diaphragm, abdominal and intercostal muscles should be obtained by a constant and systematic practice. When a proper habit of respiration is established, the first and most important requisite has been accomplished; and in some cases, the principal part of the work completed. It is possible for this to be done in a short time, and even by the stammerer himself, with only a little practical direction and advice. I have known instances where the breathing was corrected and proper respiration thus restored, and the individuals outgrew their impediment without any further assistance; but these cases are rare. Such persons are said to have cured themselves. They sometimes turn stammer-doctors, and without any further study or knowledge of the subject, attempt to cure others. This is a misfortune, since it is a most serious mistake for any one to suppose, simply because he has relieved himself that he can cure or even help another. He may understand no principle in the matter at all, and he may never meet another case just like his own. Often those cases that do not appear very convulsive to the observer are the most obstinate to relieve. No one should attempt to remove the impediment of stammering unless he has thoroughly studied and investigated its nature and causes; for if the stammerer is not materially and permanently benefited, his condition will be made a great deal worse by the attempt. But, alas, how comparatively few of our physicians and the public teachers clearly understand the actions of res-

piration, much less possess sufficient knowledge to enable others to correct their faulty habits of breathing.

Good vocalization should be obtained. All muscular effort in the throat should be avoided. With well filled lungs, the power of deliberately starting a tone of voice without closing the vocal chords should be gained. In some cases, this will require much care and industrious well-directed practice; but whatever of time and effort it may cost, it is all important that this power in the use of the vocal chords and in the production of voice should be gained. Continued practice in the cultivation of the voice in power, flexibility and purity of tone in speech or song is especially beneficial.

A thorough knowledge of the mechanism of the elements of speech and the practice of systematic exercises in articulation, will be of great value in gaining control of the organs, and is indispensable in many cases. Each vowel and each consonant element should be practised, alone and in combination, till they can be uttered with ease and precision.

One of the most important means of benefitting the stammerer is a proper cultivation of the ear. This has been sadly overlooked by those who have dealt with speech-impediments. The stammerer's ear is often so obtuse that he hardly notices his own affected speech. When proper breathing has been established, and the power of deliberately vocalizing has been gained, his progress will be largely in proportion to the cultivation of the ear. If his ear is trained to quickness and keenness of perception, it will greatly aid him in overcoming his impediment.

In the utterance of speech, there is an upward or closing motion and a downward or opening motion of the lower jaw. The stammerer will exaggerate the upward motion of the jaw and shut the mouth with great rigidity. He should discipline the jaw to a steady and easy action, relaxing all constriction. Any system of practice that requires great physical effort is entirely wrong. The stammerer should avoid great effort to speak. He should relax the muscles, relax every effort, and cultivate ease. In all his practice, he should discipline himself to deliberation; never be in a hurry, but

take plenty of time; make preparation before attempting to speak, if necessary, by a firm pause and a deep inhalation.

Good health is altogether favorable to the stammerer. One of the worst cases we have had since my association with Prof. Alex. Graham Bell, in the School of Vocal Physiology, was a gentleman who had stammered for nearly thirty years. During all this time, he had been a confirmed dyspeptic. He had lost all confidence in physicians and medicine, but was willing to make any effort to overcome his impediment. He continually improved, and was able in a few weeks to read aloud to his friends without any difficulty, which he had not been able to do for many years. I prevailed upon him to make some changes in his general habits of living, especially in his diet, which he recognized as very beneficial. He would have made more satisfactory progress if he could have regained a vigorous state of health. The stammerer should improve his health in every possible way. Any one can at least tone up the general condition of the system by proper diet, exercise and social relations. The more perfect the state of the health, other conditions being equal, the more rapid may be the progress of the individual in overcoming his impediment.

After one has continued the habit for many years, it is not an easy matter to acquire freedom of speech. It must necessarily require much time and practice. The longer the habit has been continued, the more difficult it will be to overcome; but it is never too late to begin. Stammerers should take courage from the fact that others have had success, even in old age.

Undoubtedly, childhood is the best time to remove all speech-impediments. Parents often make a great mistake in supposing that it is better to wait till the child's mind is more fully developed before attempting to remedy the difficulty. If the child could have proper direction and instruction, at the right time, in respiration and speech-formation, he might easily outgrow the tendency to impediments, and be saved from years, and perhaps a life, of stammering. When defects of speech are first manifest, they should at once be at-

tended to. Delay but establishes them, and makes their removal more difficult.

When one fully understands the nature of his difficulty, and has gained command of free and unfettered speech, his final success and triumph in outgrowing all the difficulties of his impediment will depend mainly upon his own industry, patience and determination. He must be self-reliant, and work with a strong will, even though at times it may seem discouraging to him. We have often had persons at our Institution who would, for a short time, appear to be troubled their worst after they had gained much, and were, in fact, nearly free from their impediment. The stammerer must work out his own salvation with constant care and determination.

Hardly any two cases are alike, and what might be a good practice for one, might be useless to another. It would be impossible to give a manual of exercises applicable to all, and well adapted to the individual wants and peculiarities in each particular case; but it is hoped that the discussion of speech-impediments in this article will reveal some practical knowledge in the subject and place the stammerer's condition in a far better light before educators and the medical profession, and awaken hope and confidence in this unfortunate class of speech-sufferers. In nothing is the maxim more true, that "knowledge is power," than in the case of the stammerer.

Stammerers are often unwilling to take sufficient time to fully remove their impediments. As soon as they get well started and understand the nature of their difficulty, and gain a tolerable degree of self-control, they are apt to think they are free, and prematurely abandon all practice, and all at once they begin to be troubled. This should never be done. They should never allow themselves to go back a single step. Care and practice should be followed up until co-ordination of the actions of the mind, nerves, muscles of respiration and the articulating organs is fully established; and strong and fluent speech can be uttered under any circumstances.

ART. IV.—**Taking Cold—Some of its Possible Results.** By HUGH M. TAYLOR, M. D., Demonstrator of Anatomy Medical College of Virginia, etc., Richmond, Va.

The phenomenon of taking cold is such a common-place one, that it hardly receives the attention from the profession which it merits. And yet, if we follow the condition of taking cold, and its possible and probable results through all of its varied ramifications, we will be surprised to find the extent to which our investigations will carry us. For example, very few of the sudden deaths which are said to arise from diseases of the heart, do really arise from that cause. To ascertain the real origin of sudden deaths, an experiment was tried and reported to a scientific congress in Strasburg. Sixty cases of sudden death were made the subject of *post mortem* examination. In these, only two were found who had died of disease of the heart; nine were from apoplexy, while there were forty-six where the cause was congestion of the lungs.

Turn to any of the standard works, and review the causes of pulmonary congestion. Among the most frequent will be found mentioned "taking cold." In rheumatism, the most important exciting cause is exposure to cold. There are some individuals who are certain to suffer from an attack of colic if, by any means, they get their feet wet. A most common cause of ordinary diarrhœa, both in children and in adults, is exposure to cold. There are a number of skin diseases, far too numerous to enumerate, which are intimately associated with atmospheric changes, and which are emphatically affections of cold weather. In blindly pursuing the sexual excess theory, we often fail to appreciate the fact that it is just as possible to take cold in the spinal cord as in the lungs. The exciting cause being very much the same, the cold manifests itself just as cold anywhere else would—that is, by congestion; and if the colds are often recurrent, the condition becomes fixed, and may culminate in locomotor ataxia. The action of cold in producing infantile paralysis, is by no means problematic. Its morbid effects are not limited to the province of the physician. Most surgeons can

recall cases of synovitis, osteo-myelitis, erysipelas, etc., which have been induced by variations of temperature.

It has been claimed that taking cold is a misnomer, and that it should be called "taking heat," as it is an unnaturally hot and relaxed condition of the system which predisposes to the injurious effects. This assertion, however, requires limitation. If the power of evolving heat, which is known to be inherent in the system, be active, no danger attends even violent alternations of temperature. Unusual heat of the body at the time the cold is applied, so far from implying danger, is really the condition of safety.

We know that the cold effusion is employed in the hot stages of fever, not only with impunity, but with benefit; and we can readily see that we could do the same if the body had been heated by violent exercise, provided the exercise is not discontinued. A more correct statement respecting the application of cold, is that it is dangerous—not when the body is hot, but when the body is cooling after having been over-heated, when the elimination is in undue proportion to its reproduction; and this is true whether the cold be applied externally to the surface of the body, or internally to the mucous membrane of the stomach. Very many instances are recorded of death taking place after a copious draught of cold water; and how common is it for us to hear of people dying in a bath, after a hard hot day's work, when the system is relaxed, the pores of the skin open, and everything is favorable to a quick and undue elimination of heat?

The effect of hot weather in promoting the functional activity of the skin is well known, and all writers recognize the intimate sympathy that exists between the function of the skin and that of the lungs, stomach, liver, etc. The causes of sudden death from congestion of the lungs, liver, spleen and kidneys, spinal cord, intestines, etc., almost invariably result from a sudden suppression of the cutaneous function. A consideration of what we know of the function of the skin renders it difficult to understand the mechanism by which a suppression or perturbation of its function causes such deleterious effects. The perspiration is known to consist almost entirely of water, and there are reasons to believe

that there is no product with it which could not be easily eliminated by another channel.

This opinion—that a suppression of the function of the skin produces on man profoundly deleterious effects—is as old as the times of Galen, and is one still universally held. That there is an intimate relation between body-heat and the functions of the skin, and between the function of the skin and the stomach, lungs, etc., there can be no doubt; but the exact relation is still one of the disputed questions in science.

The causes of colds are too numerous to enumerate, and are well known to professional men. But either from ignorance or indifference, or both, parents and others having charge of young children do not protect them sufficiently from climatic changes. Many silly mothers are too willing to fashion their clothing in accordance with the varying taste of the world, and not with the necessities of the temperature. No one should wonder that short graves are so common in our cemeteries, when bare arms and legs are so recklessly exposed to inclement weather. The style of dresses worn by our ladies at parties, etc., are very becoming; but they are worn at a great sacrifice of comfort and health. Take the case of your patient—the tobacconist—who passes from the sweating-room, in his factory, into the cold atmosphere of mid-winter; and what is the result? His complex machine, which had, a minute before, been fanned into activity by the heated room, receives a sudden shock by a chill or cold, or something of the sort, which ends in a pneumonia, bronchitis or hepatitis; and if he is predisposed to “weak lungs,” a consumption is lighted up, the end of which no one can foresee.

The remedies must vary according to the cause, and are too numerous to consider specially. The sequences of a cold range from a slight coryza to an acute pneumonia, or from a trivial neuralgia to spinal sclerosis; from a trifling hyperæmia of the conjunctiva to a suppurative inflammation of the eye. The prophylactic, then, becomes one of serious import. It has been said that Wellington overcame his great antagonist by attending to the shoes of his soldiers. It is mentioned that a Charleston regiment, in uniforming themselves

during our late war, provided themselves with broad, flannel belts, which they wore over their abdomens, and it was noticeable that they were unusually exempt from diarrhœa and dysentery. And, by attending to such seemingly unimportant things, we may combat a more formidable foe than that which opposed either Wellington or the soldiers of Charleston.

ART. V.—**Differential Diagnosis of Syphilis—A Clinic.** By FESSENDEN N. OTIS, M. D., Clinical Professor of Venereal Diseases in the College of Physicians and Surgeons, New York. (Reported phonographically specially for the *Virginia Medical Monthly*.)

CASE I.—This case is brought by a professional brother who has had him under care for a short time, and will present, I presume, some features of interest. The doctor tells me that his history has not been altogether an easy one to get at. Last week, I showed you how many ways there are of making an error in the diagnosis; how important it is to commence a case without any preconceived notions in regard to it. We should examine very carefully every point about which there might be a doubt in order that we may finally be enabled to come to a conclusion that we can stand by, or acknowledge that we do not know what the trouble is, which is quite as important. It is a great mistake in the profession, and it prevails, perhaps, more outside of the profession, that the doctor should be able to make up his mind at once. It is not nice for a man to make up his mind that a case is one of simple sore, and then have to take up his mind again and make it over, perhaps after the patient shall have communicated syphilis to his wife.

I presume we shall meet with some difficulty respecting the diagnosis in this case. Now, what I want to do, is to begin as though the man had never been subjected to an examination, and see what we can make out of the case, and then we will be obliged to the doctor if he can come in at any time when we are at a loss, and give us some light on the case.

The patient says he has had this trouble only for five

months; that he has had no disease before this except a clap; nothing more; that he has never had any eruption, enlarged glands, sore throat, falling off of the hair, or any pains in the bones. I think we may accept this statement as true of this case, that up to five months ago he had no trouble that we could reasonably suppose to be in the line of syphilitic infection.

Before he had this sore, he had connection about a week previous. Besides this, he did not have connection for over five weeks before.

Then, I think, gentlemen, we may accept this as a starting point, that one week before the appearance of the sore he had a connection; no connection previous to that for two, three, four, five weeks, with anybody, suspicious or unsuspecting. He says that one week after connection he noticed a little sore here which bled some. He noticed that he was hurt there at the time of connection. Now, here is a starting point; here we have an open lesion for the entrance of whatever material that may have caused his trouble. It may have come in contact with some irritating fluid. This open porte allows this to have its fullest effect at once. If it is an acrid vaginal secretion, it may set up a little pustulation, or a little purulence at once, which may last only a day or two and then heal up. Or, if it is chancroidal, it takes hold at once, and begins a destructive process, without having to penetrate the skin by its active character, and we have a chancroidal surface in a day or two where, ordinarily, it does not come to be considered worthy of notice under four or five days. He says the sore healed up after four or five days, and then there was this hard place. This very fact of itself is suspicious.

The locality of a sore has an influence upon its characteristics; upon the development of the characteristic surroundings, or something that shows to what class it belongs. Sores which show a hardness within four, five or six days, we expect to find in the vicinity where the distribution of lymphatic vessels is known to be very superficial, and that point is situated exactly where his sore is, namely, at the frænum. All the sores that I have ever come across that developed an induration early were at this point. The lymphatic circulation

is just underneath the epithelium. Now, that is the channel through which the syphilitic material is carried into the system. And when this material which develops into an induration is applied there, this cell material—proliferation—goes on until one of these cells can get into the interior of that vessel, and then it moves right on to the gland in connection. We have shown, in various ways, that the so-called period of incubation is the time that it takes between the application of this little disease-germ and its entrance into the lymphatic vessels. Before that occurs, where the distance is considerable, a good deal of proliferation has gone on, and the presence of these cells produces the hardness; the induration will be more in proportion to the time that it remains there before it gets into the lymphatic vessel, and to the distance it has to travel before it gets into the vessel. The distance here is very short; the induration comes very quickly, and is not very great; and consequently we would be much more likely to find an induration occurring at such a point as that (if it turn out to be a syphilitic induration), than if it occurred on the top of the penis where the vessels are not so superficial. If the induration had occurred there, we should expect to see it from irritation, because it is not common to occur so soon at points where the lymphatic distribution is more deeply situated.

So this leads in the direction of syphilitic disease in this case. Then, after this healed up, it left a little lump, and this broke out again almost right away. It commenced to bleed again. Now, I think we may assume, from what we have heard already, that it is quite possible this was a lesion of syphilis; but let us go on with the history of the case. If this began as an initial lesion of syphilis nothing would interfere with its progress.

"Then what did you notice next? Did you notice any other trouble?" "No, sir."

"Did you notice anything in the groin?" "Pain came on there."

"When did the pain come on? Had you noticed any swelling there?" "No, not then."

"You noticed pain before you noticed any swelling?" "Yes, sir."

That is unusual. The first thing patients generally notice is painless glandular swelling in connection with the initial lesion of syphilis. Now we will examine the glands there, and see about it. We expect to meet with all kinds and all varieties of enlargement there—from those which are of the size of a pea to those which are of the size of a small pullet's egg. We may have glands enlarged from syphilitic causes, and from simple causes, and from the introduction of chancreoid material from a sore up into the gland, all at the same time. We must not, then, make up our minds, because we see some that are suppurating, that they are necessarily simply chancreoid; nor if we see a mass of glands here, that they are necessarily syphilitic; they may and do come from various causes. But one of the things that we do not expect to find in the early gland development of syphilis is tenderness. The glands connected with the development of syphilis are painless, as a rule—so much so as to be characteristic.

When I come to examine the groin, I find plenty of enlarged glands. They probably would not be noticed by the patient, and it shows that we cannot place any great stress upon the statement of the patient with respect to whether the glands are enlarged, or when they first became enlarged. Here are glands of the size of a pea very definitely marked all along the course of the groin; half a dozen of them can be made out very readily which are entirely distinct, and free from this place which is suppurated, to which the patient called our attention. Now, on the opposite side, we have also glands enlarged with a certain evidence of an inflammatory process which has been going on here some time. They are clotted together; lymph has been thrown out and has agglutinated the glands into a mass, and this may occur from various causes.

Now, the sore the patient told us, and we have seen, is underneath, on the frænum. I was pretty certain we should find it at that point after the statement in regard to the time of the induration. We do not expect to see an induration generally under about three weeks after connection. Yet there is a well-authenticated case where the induration came

on within twenty-four hours after connection, and others where it has come on within two or three days. Several of this latter kind have been recorded.

It has been now five months since this thing began. Here in the groin is a suppurative process which has been established from the same cause. There are various ways in which this suppurative process may be brought about in cases of syphilitic enlargement of glands. One of these ways is an interference with them on the supposition that they contain purulent material—a mistake which might possibly be made, as was true in this case. The patient tells me that before he saw his present physician he had been treated by poultices, and this glandular swelling in the groin was cut into several times, but nothing came out but blood. Evidently a mistake was made, in opening into a gland, enlarged from other causes besides inflammatory process. Of course, any such procedure as this is one which would be calculated to set up a process of suppuration instead of relieving it, and such a course is, under all circumstances, pernicious. In the first place, you may state it, as a rule, that no gland should be opened unless pus is then present, and you should be sure to get fluctuation very positively indicated before you make up your mind that pus is there. But to open into a gland enlarged from syphilitic causes, enlarged simply from an aggregation of material, an accumulation of cell material, is one of the worst things you can do for it. It induces a tendency which you want to avoid, that is, to suppurate, and it is the worst kind of treatment for an enlargement of that kind. This is a sort of material that we must get rid of through the agency of fatty degeneration, which goes on in the system naturally under certain circumstances—under all circumstances, to a certain extent—but more where parts are subjected to pressure, and where there is superabundant material, as there would be in this case. So that, naturally, a certain amount of fatty degeneration would come on, and the tendency of the thing would be to get well. Of course, in the onset of this trouble, the tendency is to increase the deposit of this material; and that increase is by very far over the unaided power of nature to set up this fatty degenera-

tion. Hence we bring to bear this agent that has been before spoken of as the best we have for producing this material, namely, mercurials. We expect to get rid of this accumulation in the glands by means of the administration of a mercurial in judicious quantities.

We have sufficient evidence that the disease is syphilitic in its origin as far as we have got the history, and that it has involved the inguinal glands.

Another thing in connection with these enlarged glands in the groin, which it is important to bear in mind, is that they sometimes enlarge at that point as a result apparently of violent exercise, as in the act of coition at times. I have seen a very considerable number of cases where the glandular swellings could only be attributed to this sort of energetic action, and where the enlargement has followed a slow inflammatory course, has been very obstinate to treatment, and has finally resulted in an exudation and condensation of a large amount of plastic lymph, and where, as in the present instance, the glands have been agglutinated together by it, just as from inflammation from any other cause; and sometimes it has continued so that extirpation of the glands has been necessary to a cure. I only speak of that in passing to remind you that these are not necessarily syphilitic, although we have had a pretty fair syphilitic history, as far as initial lesion is concerned.

But we want to look next to the enlargement of other glands. Let the patient take off his coat, and we will see if we cannot find something to confirm our opinion.

Now, five months after infection, we should expect some enlargement of the glands at a distance. We look in the epitrochlear space for the evidence of it, because the glands here are most commonly enlarged in this disease. Yes, here is a gland which is enlarged to about the size of a small bean. Sometimes this gland is higher up; we will find it along the border of the triceps muscle. Here on the other arm, it is smaller and situated higher up. It slips behind the muscle sometimes, and after having felt it once, when you come to feel for it again, you may not be able to do so; you get your finger on the tendon, and then you think that in the

first instance you must have been mistaken, that you supposed you felt the gland, when, in fact, you felt the tendon. It is very deceptive. You want to be careful about it. If you are careful to note how it feels you will not make a mistake.

Here we have some rather small glands in the neck. In a certain number of cases we have these glands, in perfect health, developed to some degree, sufficiently to lead one astray. We cannot depend upon this solely, and we do not depend upon this in any case solely. We remember that glands are enlarged from various causes. Painless granular enlargement is a result of scrofulous diathesis, but it does not come on rapidly. It is rapid, painless, gland enlargement that is so significant of syphilis. We have glands developed on the back of the neck, more particularly where there are sores on the head, but here there are no sores. I do not find any enlargement of the glands back here. You are more likely to find them where there is irritation about the head. Indeed, it has been said that that is the usual cause, but I think that is putting it rather too strongly.

Here I get one well-marked gland on the side of the neck, and I shall probably be able to find its fellow on the opposite side. They are very readily hidden here behind the border of the muscle. But the glandular enlargement in the neck in this case is not well marked; it is not particularly characteristic. There is nothing in the way of an eruption to help us out.

Now we will look in the throat. We are a little biased now, by the history of the case, in favor of syphilis, and we should be willing to accept a less amount of trouble as characteristic of syphilis at other points than if we had only those signs alone to aid us, so that if we find now a moderate degree of congestion of the throat, we should look upon it as bearing upon this syphilitic character of the trouble. We have the syphilitic disease presenting itself not only in every stage of its development, but in every possible degree from where there is no positive evidence of its presence to where we have five or six, or more, positive evidences of syphilis occurring in the same individual.

We find a very pronounced congestion of the throat. If his throat were not so sensitive, I would ask you, gentlemen, to look at it. This painless engorgement of the throat is certainly characteristic of syphilis, and this continues, as a rule, to a greater or less extent throughout the whole course of the disease, and in a very large majority of cases it remains longer than any other evidence of the trouble—after even the glandular enlargement has disappeared.

The patient says he has no other trouble whatever except a pain in the hip, which sometimes extends down the leg, which came on four weeks ago. Now, this looks like a case of what might be called, on account of its connection with this history, syphilitic sciatica. Exactly why we should have syphilitic sciatica may be a question, but you know that when the glands begin to enlarge at a distance from the local trouble, they enlarge throughout the glandular system to a greater or less degree, and they may enlarge at points where they may exert pressure upon some nerve; so that we might have some of the deep glands of the pelvis involved in such a way that they press upon the sciatic nerve and produce what is termed syphilitic sciatica. That is the only way that I can conceive how we can have a sciatica peculiar to syphilis.

You have instances spoken of in your text-books where jaundice is associated with secondary syphilis. These cases are so rare that none of the books published in this country have cited, I believe, any cases within the knowledge of the authors, but they have been quoted from foreign authors. I have happened to see one case of this kind, and it occurred at a time when the glandular system was rapidly developing or enlarging throughout the entire system, and in this case the probabilities were in favor of one or two things: Either the aggregation of syphilitic material, as in a papule, or the aggregation of syphilitic materials in a gland which press upon the ducts in such a way as to prevent the flow of the bile, and in that way it is returned into the system, or fails to be taken up.

Now, here we have this pain as the result of a mechanical cause, and only that, as I conceive, if it is connected with a syphilitic trouble. We should not be too hasty in making

out this connection. At the same time, if we meet with a class of cases that are so frequently associated with syphilis that it is something evidently more than an accident, we have a right to term it syphilitic sciatica.

In the first place, we should look for the causes which produce sciatica. We should look for the presence of a tumor; we should look for fæcal tumors. These are the most common causes of sciatica on either side. We may have it as a result of pressure either from an accumulation in the sigmoid flexure and the rectum, or from an accumulation in the caput coli. Consequently we examine for these in all cases of sciatica, whether the patient has syphilis or not. The patient says his bowels are regular every day. Now, that is perfectly compatible with an accumulation of fæcal matter of any size in the bowels; and in your lectures on practice you have heard this alluded to, undoubtedly, because a passage may be bored, as it were, through this mass, or a little passage may be kept open while the accumulation is going on; and in this way deception is liable to occur.

Sometimes we find, from a simple examination in this general way, the presence of some enlargement. Here we do find some accumulation about the sigmoid flexure of the colon on the same side with his sciatica; you hear distinct flatness there on percussion, while elsewhere it is tympanitic. Now, whether that accumulation is sufficient to account for his neuralgia, may be a question. So that shows us the necessity in these cases of taking a broad view, and not to say, as it would appear from the journals, that some do, that, simply because we have the existence of pain in such cases, syphilitic sciatica is not infrequent; that we should immediately accept this, occurring at this time in syphilis, as a syphilitic sciatica, and be satisfied with syphilitic treatment. We want to find out whether there is anything else connected with it; whether we have an ordinary case of sciatica as we find it in many cases of accumulation of this material. Sometimes it is associated with a malarial attack. This patient says he has never had chills and fever.

But although this may not be a syphilitic neuralgia, it will not interfere with the syphilitic treatment. We shall give

him the benefit of the syphilitic treatment any way ; but do not let us stop there. Let us also give him the benefit of the O'Bearn tube, which, in such a case as this, I should be inclined to pass up into the large bowel above the sigmoid flexure, and throw in a pint or two of ox gall, and in that way unload the bowel. That is a very good way to do it. At any rate, when you do that, and you find hard black material coming down, you may be sure that it is worth your while to keep at work with cathartics, with salines, until you break up and clear out the material that is always indicated by the appearance of scybalous faecal matter. We are not getting off the track here, gentlemen, and giving a lecture upon practice at all ; we are in the line of our specialty of syphilitic treatment, and that will carry us in many cases into other lines which we must understand and appreciate if we want to cure our patients.

I think that in this case the syphilitic treatment would be the one to adopt, whether the gland-enlargement depends upon syphilis or not. But, in view of the apparent initial lesion in this case, the probabilities are in favor of this gland-enlargement being caused by the deposit of a syphilitic material, and that the other gland-enlargements are not accidental, but are the result of a continuation of the same process, and that the congestion of his throat is a part and parcel of that same disease, developed, in its peculiar way, upon the mucous membrane at that point ; and it warrants us in suspecting that he will get other lesions of the mucous membrane, so that we will keep watch of the mouth for a mucous patch ; and as soon as we get a mucous patch, whatever doubt may have been over the case before, it is then dispelled.

This is a case which requires the administration of a mercurial—the usual way in which we treat the active stage of syphilis. The ordinary formula, you know, is two grains of blue mass and one grain of the exsiccated sulphate of iron—a tonic which persons passing through this stage of the disease are usually better for having, and the form of mercurial which is most readily borne by the stomach. I would give this man one pill three times a day until there is a little

sponginess about the gums. I do not desist in these cases unless I find there is some sure indication, as sometimes I will, that the glands about the neck become a little tender. Then I stop it.

The Doctor has had him under the mercurial treatment. He anticipated, as I supposed he had, all this that I have been through. I had no idea of what he was doing, though I felt satisfied that there would be no difference of opinion about it. The patient has been under the mercurial treatment now for over three weeks; and he says that under this treatment the appetite has failed, and he has gotten worse. He gave him the proto-iodide. This will sometimes occur, and it is an indication to change the form—to change the character of the treatment. If I found that the iodide did not do well, I might be induced to use a twentieth of a grain of the bichloride and the tincture of bark, which is a very nice tonic. The doctor has also given the iodide of potassium. Of course, the iodide of potash has very much less power to do what we want to do.

Where the mercurial does not act well, the chances are in favor of the scrofulous diathesis—either the hereditary or the acquired—and I am inclined to use the pure iodine in such a case. That is what we want when we want to give the iodide of potash; but in giving the pure iodine, with starch or with Stewart's syrup, which is a favorite way of mine, we get a beneficial effect upon the scrofulous trouble, and when we push the mercurial without a consideration of the scrofulous element, we may find that the glands will go on to suppurate. This is a thing, of course, very much to be dreaded in such cases.

I will not spend any more time in considering this case, although there is nothing lost in thoroughly studying each case; but we will let the next patient come in, who may present some features that will enforce the remarks already made to-day. I will conclude by simply saying, with regard to the treatment, that it should go on, always respecting the condition of the patient. It is well enough to remember that, as a rule, where mercurials are indicated, they are well borne; and there may be various causes why a man may lose

his appetite—why he should have a lack of general health just at this time. These causes may be mental, as well as constitutional, and we must not forget that; for I have seen cases that were much depressed, debilitated, come up under the influence of a mercurial; the appetite improved; the general health improved as much as you would have supposed it possible for persons to do under treatment by tonics alone.

CASE II.—Now, here is a case where the last connection was the 28th of April, 1879. Three days afterwards, he noticed a little lump here. He was having connection with different women right along for sometime before that. How important it is to get the history, not alone of the connection to which the patient attributes his trouble, but to go back to some previous indulgences before we make up our minds as to the character of the difficulty! He says here, then, that he has had connections which would account for almost any thing; and, three days after his last connection, he noticed a little lump, as he says, like a little scratch. I don't exactly appreciate a lump that looks like a scratch; at the same time, the patient evidently has an idea in this description that he wants to convey, and we will try to see what it is. Was it a lump? "It was a kind of bruise, just as if I jammed or hurt myself on a woman." Now, you will remember, or some of you will, that we had a patient here last winter who gave a description of his trouble which was very *apropos*, or appropriate. The man described his initial lesion as a sweat; it was a little sweat. I shall never forget that. That strikes me as being the best description of the initial lesion that I have ever received. A little sweat—a little pimple which had the top bruised off, perhaps in the way that this patient suggests, and left just an abrasion. So this man has a lump which was scratched, and looked, as he says, as though it were an injury received at the time of connection. We will now examine it.

The patient is a little tedious in giving so minute a history of his case. The treatment seems to have been various, by the application of caustics, etc., but still, it is instructive. It is a very good history of the way in which the initial le-

sion of syphilis is sometimes treated; and, as he says, the more it is treated in that way the worse it gets. He has some gland-enlargements, and perhaps he has some other evidences of syphilis. He has had an old abscess in the groin. The enlargement of the glands here is not very well marked, but it is sufficient, when taken in connection with other symptoms, to be indicative of syphilis.

He tells us that this sore on the penis has existed since May a year ago. I supposed that it was quite a recent case. At the same time, I was not able to find anything that was particularly indurated to be characteristic of initial lesion, and if this sore has been present for the length of time that he represents, it is something more than an initial lesion, which has been kept open by treatment. Exactly what it is, may be difficult to state. I do not think it would be wise, with a sore lasting this length of time, to be very precipitous in giving an opinion. If it had been syphilitic, we should have no difficulty in finding some evidences of it generally upon his body. There is no enlargement of the glands in the epitrochlear spaces. There are some very small gland-enlargements in the neck. The patient tells us he has not had any breaking out on the body. We must bear in mind the fact that we have other venereal sores which pursue a very slow course—a sore which passes under the title of ser-piginous chaneroid, which is very slow in its course, and which is suppurative as well, and which resists all ordinary cauterization and all ordinary treatment, either by mercurials or otherwise. There is evidently a tendency here for the sore to take on a chronic condition. It has extended from a point where it originally began around almost two-thirds of the way, and is about a quarter of an inch broad. It is very superficial; but the edges are by no means in a laudable condition. There is no evidence of any healing process going on there, and I think that we had better see something more of this case before saying that there is anything specific about it.

Now, this point did not commence as an ordinary chaneroid; nor did it commence, according to his statement now, as an ordinary syphilitic lesion. There was nothing charac-

teristic about the induration, and there is nothing characteristic about the glands of the groin, that we certainly ought to find in syphilis, unless time enough has elapsed for it to have disappeared. We certainly should not think, from the history we get here now, that there is any reason to suppose it to be syphilitic. I should look upon it as one of the forms of chancroid that I have just referred to; and this idea would be confirmed if, upon taking a little of the secretion, we made an inoculation upon the chest and got a positive result from it. This, I say, would confirm the idea that this is a chronic chancroid, and we should have a little pustule.

This is the fact in regard to serpiginous chancroids, that they retain a degree of contagiousness as long as they exist, although that existence may extend to two, three, four, five or more years. I think you will almost always find one or two of these cases in any of the large venereal hospitals. I remember very well, indeed, having two or three under my care in the Blackwell Island Hospital, twenty-five or more years ago, where the extension of the disease had been from the penis up along the groins and around posteriorly about the anus, making a very large surface of superficial loss of tissue, and which persistently refused to heal; but upon the surface of which, here and there, would spread little islands of healthy-looking flesh, when we would think the thing was going to get better, but they would slowly melt away, and the process would begin again, just as this patient says has been the way with his case.

Before Dr. Hammond devoted himself to the study of nervous diseases, he wrote a very excellent book on venereal diseases, and in it he speaks of having seen, in his experience in the Mexican army, quite a large number of these cases of serpiginous chancroid, which he treated by the application of strong solutions of iodine—something like double the strength of the ordinary tincture—applying it locally, and these cases were said to have been cured by this treatment. Under any other measures, unless it should be, perhaps, the actual cautery, I should not be very sanguine of great success.

This strikes me, on looking at it for the first time, as be-

ing a sore of that kind, taken in connection with the history. Here I should be very glad to have a little more time; I wish to make the experiment to see whether the secretion is contagious in its character or not. And yet, that does not prove as much as we used to claim it proved, because an irritated initial lesion will produce that same sort of thing. Such cases as this are not promising, and we do not expect rapid improvement. If we can cure him after some weeks, we shall be very well satisfied; and so will he.

CASE III.—Now, we have had so many of these cases in which we have had to change front with respect to our opinion of the case as new facts developed themselves, that I hope now we have come to one which will go smoothly and straightly along, and which will enable us to demonstrate that we know something about it, for we do have some cases in which we can come to a conclusion at once, and a correct one, without having to go through such a long process.

But this seems to be rather a mixed case to begin with. Here are apparently a couple of suppurating buboes, and that looks like chaneroid. It may be well enough to find mixed cases once in a while, for if you did not, you might think it a very simple matter to tell whether a man had syphilis or chaneroid, and lead one to go blundering ahead into error.

Now, here is a case in which we have some suppuration going on in the gland, and apparently nothing the matter with the penis. The penis appears all right; but when we pull back the foreskin a little, we see a hard but innocent, very insignificant looking lump. I feel satisfied that we have something there which is entirely opposed to the idea conveyed by these inguinal enlargements. You notice here how this lump-like affair has begun to whiten, as though there was something hard underneath. Now, that is an evidence of a cartilaginous material there which means syphilis. As I turn it over, there is a beautiful specimen of the initial lesion of syphilis. You could not have anything finer. A very slight touch of it will convince you that the tissue is not soft, but that it is cartilaginous tissue, which is characteristic of the initial lesion of syphilis.

Now, we say that is not a suppurating sore; there is scarcely any suppuration there. There is a transparent moisture exuding. Although it is irritated, it is scarcely more than transparent. If this were irritated a little more you would get pus. You would still have the induration, which is so distinct and characteristic, and so unlike the chancre. Now, how is it that he has got those buboes? We shall have to go back into the history a little. It is quite possible for the initial lesion of syphilis to date back of the buboes in his groin, and to be the source of them, because it is chancreous material which is evolved in the process of irritation in the initial lesion, and this chancreous material may be absorbed from a running action, producing a suppurating bubo, just as well as if it were set up by the chancre originally.

"How long have you had this?" "About three months."

"How long after connection?" "About four months. I had a clap first; that went away, or I thought it went away, and then it came on this side here."

Then, so far, gentlemen, this seems to be the result of a gonorrhœa.

"These enlarged glands—they occurred how long before this started on your penis?" "About three weeks."

"How long after connection did you notice the sore on your penis?" "A long time—six months. I had a clap first; then I noticed that; afterwards I noticed this on my side. But it is so mixed up that I hardly remember about it."

Well, gentlemen, this is another case of mixed trouble. There is one thing that we must bear in mind in these cases, and that is that the initial lesion of syphilis, which comes on pure and simple, without the intervention of any irritating material other than the disease germ of syphilis may establish, may go on for two, three, four or five months without attracting the patient's attention at all. It may come just as a little hard lump, which sometimes is not larger than a grain of rice. I have seen it finally develop into constitutional syphilis from such a point as that, and finally, then, from various causes, it begins shedding the epithelium, and a little erosion appears, which gradually becomes more and

more inflamed, and more and more like an ordinary open initial lesion of syphilis. The fact that he did not notice this until four or five months after connection, is entirely compatible, then, with what we know the history to be in certain cases. The facts here present, which are most significant, are the appearance and feel of the induration.

It is one of two things: It is either the initial lesion of syphilis, or an epithelioma. We have nothing but those two things which ever produce such a condition as we find present here. Now, the condition of the glands here in the groin is such as to be entirely valueless in settling the question as to whether syphilis is present or not; but we have glands at a distance to examine, as in the other case, and if we find them more marked, we shall have a confirmation of the probable character of the difficulty. Epithelioma in such a subject as this, a young man, is too rare to bear much weight in the account. His connections render it very much more likely that his trouble is of a purely venereal character, and the possibilities are that we shall find on him somewhere something which will confirm us in that idea. Now, take off your shirt, and let us see your body.

Here, on his shoulder, is a roseola, but whether it has anything to do with his syphilitic trouble, is a question. Let us look into his throat. It is very much congested; but there is no mucous patch. His throat felt sore about a month ago, but has not since until within a day or two.

This roseola eruption upon the back is a little irregular; but still, I should be inclined to give some importance to it. We sometimes find a mucous patch about the genitals, but the patient says he has none about there. Now, this eruption on his body may have no connection with the other trouble at all; but the patient himself is inclined to look upon it as recent. We will keep track of this. In my own opinion, there is little doubt, from the appearance of the initial lesion, but that this is a case of syphilis; and if this does not turn out to be a roseola, it is only because the roseola has been and has disappeared. The enlargement of the glands about the neck is not marked. It has been four months ago, and this is just the time when we should be getting some of

the more characteristic evidences of syphilis. We must not forget that that initial lesion, at any rate, is thoroughly characteristic. A non-suppurating, indurated mass, half as big as a hickory nut, with the appearances around it, is unlike anything which I have ever seen except in the initial lesion of syphilis. You may wipe that moisture off, and in a minute or two you will see the transparent secretion exuding again, and this transparent secretion, introduced into an abrasion upon the healthy subject, is perfectly capable of producing syphilitic disease, so that an ulceration is not at all essential to the syphilitic process.

Undoubtedly, the original point of introduction of the disease—the disease germ, the disease virus—has healed, and then it has appeared as a little induration which has been entirely insensitive, gradually increasing until, finally, it has attracted the attention of the patient, months after its original acquirement. In this way, patients go through with all the stages of the diseases without knowing it at all, and later in life may have some sequelæ of syphilis, which of course will seem very extraordinary without any such antecedents; and yet, when the lesions which are characteristic of the later stages of the disease occur, and we find them amenable to the treatment which we know is curative, where the trouble arises from syphilis, we are warranted in making an absolute assertion that at some previous period the individual did have active syphilis. Tertiary syphilis can never occur without secondary syphilis, and secondary syphilis can never occur without primary syphilis. You may just as well claim that the full-grown fruit can appear without coming from the seed, as to try to make it appear that tertiary syphilis—the characteristic tertiary syphilis—can make its appearance without having been preceded by the earlier stages after the initial lesion of the disease.

These bubonic enlargements here are not of much importance, in this case, on account of the cause antedating the syphilitic trouble; and while they may be mixed up with it, they are very much obscured by the inflammatory process that has gone on there, and are entirely valueless as diagnostic points. We will have an opportunity of seeing this again,

and then we will watch developments, and it will be quite strange if we do not find something to confirm the diagnosis.

“Have you had any scabs in your hair?” “Some.”

That is quite peculiar. In some of these cases, where they are entirely free from an eruption during the active stage of the disease, they will have a papular eruption in the hair, which becomes scabby. A little scab will be picked off, and this is one of the first things that often attracts a patient's attention. These scabs, which are so entirely opposed to a healthy condition of the scalp, are so rare in any other condition, that they are diagnostic in a certain sense, and valuable in leading to a positive opinion in regard to a suspected case.

Clinical Reports.

Case of Cancer of Liver, with Anomalous Symptoms—Death—Autopsy. By R. C. BOWLES, M. D., Chapel Hill, Fluvanna Co., Va.

About February 1st, 1880, I was called to see Mr. S. J. R., aged forty; married; no particular occupation; has for a long time been addicted to whiskey. I found him with symptoms of chronic gastritis—with dyspepsia, much reduced in flesh, and general debility. He said he had not felt well for several years except when under the influence of whiskey. His last *spree* was during the Christmas holidays, when, in a state of intoxication, he slept outdoors two nights, since which time he has been unable to drink any spirits, and can keep but very little food on his stomach. I directed for him Liebig's essence of beef, with pepsin, and counter-irritation over the stomach. Under this treatment his dyspepsia improved; but in a few days, he was attacked by violent pain about the sacral region, hips, and down the thighs, and lost the use of the lower limbs. Nothing relieved this severe neuralgia but large doses of laudanum *per rectum*. This continued to be the prominent symptom for about three weeks, when his gastric trouble returned and he became very restless, getting no sleep unless under the influence of an anodyne. He complained of great thirst, with night sweats, and oppression about the stomach. He began

to regurgitate his food again. There appeared at this time some distension about the gastric region, and on making firm pressure with the fingers at right angles to the parietes, a hard, nodulated tumor was discovered filling the left hypochondriac region, extending in front of the stomach. No pain or other symptom indicating hepatic disease was present. The bowels were regular, had been clay-colored, but assumed the natural appearance under alterative doses of mercury. Tumor painless to the touch, but pressure over the sacrum gave pain. No jaundice; no ascites; very little œdema of the extremities; appetite tolerable, but lives chiefly on Liebig's extract of beef; complexion leaden and cadaverous. Diagnosis: malignant disease of the liver.

I saw him *April 1st* in consultation with Drs. Barrett and Gray. The diagnosis was concurred in, but we decided to put him in a nitro-muriatic acid bath; also, to use this agent in small doses internally. This was continued for ten days, when he was seen to be growing rapidly worse—the tumor enlarging, very hard, no fluctuation or softening anywhere; commencing ascites and jaundice.

April 18th. I was hastily sent for to see him, as he was thought to be dying. I found him very pale and nearly pulseless. He had vomited about a pint of dark, clotted blood. I gave him a little stimulant, and he immediately vomited as much more blood, succeeded by extreme prostration. By internal and external stimulation, reaction came on in a few hours. I gave him pounded ice and alum with lead and opium, to stop the hæmorrhage. He continued to spit up a dark matter like coffee grounds, and sinking gradually, he died at 10 o'clock P. M., *April 23d.*

Autopsy—3 o'clock P. M., *April 24th.*—On external examination, body greatly emaciated; skin deeply jaundiced. About a gallon of fluid was found in the abdominal cavity—dark from coloring matter of the bile. The transverse colon and duodenum were very dark where they came in contact with the under surface of the liver. Mucous membrane of the stomach congested, from which the hæmorrhage had occurred four days previous, occasioned by obstruction to the circulation through the liver. The stomach contained about four ounces of the dark, bloody matter which had been expectorated for several days. The liver was about three times the normal size, extending across and filling the upper part of the abdominal cavity, and was of a deep yellow color. Its surface appeared irregularly nodulated, and was very firm on pressure. On section, very hard and gristly; nodules about

the size of almonds, and a pale yellow and semi-solid fluid were interspersed through the interior of the organ. The gall-bladder contained about four ounces of bile, which was very black.

What seems to me unusual in the case, was the absence of any marked symptoms of hepatic disease, when the organ was a mass of cancerous matter, and had been for some time—while I do not find violent pain in the lower part of the spine with sciatica symptomatic of organic disease of the liver by any author.

Correspondence.

Thymic Acid Mixture for Diphtheria.

Mr. Editor,—I have, for the last few years, been using the following medicine in all of my cases of diphtheria and diphtheritic sore throats, with a success that I never attained with any other form of medication. I have used it in those cases where heretofore I have failed and lost my patients with the usual remedies, such as tincture of iron, quinine, etc., generally in use for this distressing disease:

R. Glycerine..... ʒij
 Thymic acid.....gr. iv to vj
 Chlorate of potash..... ʒiiss
 Bi-sulph. quinine..... ʒss to ʒj
 Brandy (very old)..... ʒvj . M.

Sig.: To a child from 2 years up to 5, a teaspoonful every hour or two, according to the urgency of the disease. Increase the dose from this age upwards to ʒiv . Let the patient take it without any water if possible, as by so doing he will get the stimulating effect on the throat, and thus avoid the use of anything for a gargle.

This is a fine formula to use as a prophylactic agent for this disease, and malaria and other affections of similar origin.

By adding a few drops of the muriated tincture of iron to each teaspoonful or dose, we have one of the very best of tonics, and it will be found useful in many cases after typhoid fever, attended with diarrhœa, or in ulceration of the mucous membrane of the stomach and bowels. When the food dis-

tresses, it will be of great advantage if we add a few grains of true pepsin porci, of Muson's, or ingluvin, manufactured by Warner & Co.—particularly the latter medicine, in atonic dyspepsia and some forms of chronic indigestion, accompanied with nausea after taking food.

For atomizing the throat, I use the following formula:

R. Glycerine.....	5j	
Thymic acid.....	gr. vi to x.	
Borate of soda.....	5iv	
Camphor water.....	5ij	
Tar water.....	5v.	M. Filter.

Sig.: Atomize freely every two or three hours.

The glycerine is added to cut the thymic acid and hold it in solution.

I am astonished at the great variety of diseases I treat with the first of these combinations especially. In typhoid fever and erysipelas, I add to the mixture muriated tincture of iron, etc. No opiate is generally required, as the potassium will be sufficient to induce sleep.

JOS. H. WARREN, M. D.

51 Union Park, Boston.

The Best Mode of Administering Nauseating Medicines, such as Oils, etc.

Mr. Editor,—Having ordered a bottle of malt liquor, such as porter, ale or beer, direct the bottle to be shaken before it is opened; then pour enough of its contents into an ordinary glass until it is nearly filled. Then pour into the center of this glass containing the malt liquor, the dose of oil, of whatever kind it may be (castor, cod liver, etc.), which ought to be measured previously in a wineglass, for the sake of dispatch. When that has been done, the dose is now ready to be swallowed, which can be done immediately, without the slightest taste.

The *modus operandi* is this: The oil rests upon the fluid part of the liquor, and is covered by the foam, completely isolating the oil.

I have in this manner frequently administered cod liver

and other oils with the greatest impunity, to ladies who were most delicately constituted, and to whom the mere mention of oil would produce nausea.

C. C. DUFFY, M. D.

Norfolk, Va.

Original Translations.

From the German and French. By WM. C. DABNEY, M. D.,
Charlottesville, Va.

Porro's Operation.—At the meeting of the Academie de Medicine on the 9th of March last, Dr. Lucas Championniere exhibited two women on whom this operation had been successfully performed, stating, at the same time, that he had operated four times by Porro's method with the result of saving the life of two of the women. All the children were alive when delivered, but two died subsequently—one as the result of an accident, and the other from cold; the latter lived four days, but was never vigorous. All the women had contracted pelves, with a conjugate diameter of six centimetres or below.

[Three of these cases have been reported before, I believe, and one, at least, has been given in sufficient detail in the able and elaborate paper on Porro's method in Europe by Dr. Harris, of Philadelphia, in the *American Journal of Medical Sciences* for April last. I shall not refer to that case again, therefore, though M. Lucas Championniere gave a detailed description of it to the Academy.—W. C. D.]

The second patient entered the Necker Hospital on the 30th of December last. She was twenty-eight years old, rachitic, and her height was about 4 feet 3 inches. The sacro-pubic diameter was about two inches. She had been in labor for thirty-six hours, and the waters had been discharged for twenty-four hours. She was operated on at 9 o'clock in the evening of December 30th. The os was dilated to the size of the palm of the hand. An incision about $6\frac{2}{3}$ inches was made in the middle line. When the uterus was opened there was quite a free discharge of blood; the shoulder of the child, which presented at the incision, was pushed to one side, and the feet were drawn out, and the child thus delivered. It breathed well, and weighed between

five and six pounds. The wound was closed by metallic sutures, the pedicle being secured in the lower angle. Lister's dressing was used. The patient never had an accident, except an unusual acceleration of respiration twenty-four hours after the operation. The temperature never rose higher than 38° C. The wound was not dressed till the fifth day, and not again till the ninth. At the latter, the pedicle came off, and there remained only a superficial ulceration. At the date of M. Championniere's communication, she was in perfect health, and the baby was doing well.

The third woman was operated on at the Maternity Hospital on December 3d. She died thirty-six hours after; the child is still living.

The fourth and last patient was operated on at the Cochin Hospital on the 17th of January last. The sacro-pubic diameter in this case was a little less than two inches. Death occurred twenty-three hours afterwards. The infant died three days later.

In referring to these cases, M. Lucas Championniere remarked, that in those cases where the sacro-pubic diameter was $2\frac{2}{5}$ inches or under, the mortality from cephalotripsy was enormous; and these cases should not be confounded with those where the diameter was as much as $2\frac{4}{5}$ inches. He did not think, furthermore, that Porro's method was to be preferred in all cases to simple Cæsarian section. The danger of the operation is due to the section of the uterus and the subsequent compression.

M. Lucas Championniere thought the incision through the abdominal wall should be made much higher up than has been customary heretofore; the antiseptic dressing can be better applied at a little distance from the pubis. Another objection, in his opinion, to the operation as usually performed was, that the uterus was cut too low down. Only a "moderate part" of the organ should be removed. The antiseptic treatment should be used in all its details. He thought it would be better for the surgeon to interfere before labor comes on.

Treatment of Fractures of the Lower End of the Humerus in the Elbow Joint.—There was an interesting discussion on this subject before the Société de Chirurgie on the 7th of April last, an abstract of which appeared in *Le Practicien* for April 19th.

M. Despres reported a case in which the lower end of the humerus was broken into three pieces. He described the fracture as being inter-condyloid and intra-articular, the fore-

arm being dislocated backwards. All surgeons, he said, with Desault at their head, regarded these fractures as very serious, and thought that they were generally followed by ankylosis. M. Despres himself had always thought with Giraldès that no apparatus was advisable in these cases. In the present instance, he placed the arm in a sling, and applied a poultice to the joint to allay the irritation. The patient remained in bed most of the time, but sat up about six hours a day. He considered this mode of treatment far preferable to that in common use where splints were applied.

M. Sée said he had seen at the "Sainte-Eugénie" Hospital a child who was treated in the manner recommended by M. Despres. In this case a vicious ankylosis resulted, against which the surgeon was powerless. Double fractures of the epicondyle and epitrochlea may be aggravated by the separation of the two fragments of the humerus. These should be brought into apposition, and if the upper extremity of the ulna should project between the fragments, it should be placed in its proper position.

M. Despres said the treatment which he recommended did not consist in doing nothing. The sling which he employed not only rectified the displacement of the fragments, but prevented a recurrence of such an accident. The position of the forearm, at a right angle with the arm, remedied the displacement in fractures of the epicondyle and epitrochlea.

M. Verneuil said that, from time to time in the history of surgery, it had been proposed to treat various fractures of the radius, clavicle, etc., without any apparatus. A small number of surgeons, comparatively speaking, had advised such a procedure. The present tendency to treat fractures at the elbow joint in this way was largely due to the teachings of Giraldès. In spite of so high an authority, however, he thought the method was to be condemned. Unless some apparatus is used to keep the joint immovable, the patient is liable to arthritis, white swellings, etc. A child whom he had seen treated in this way had a stiff elbow joint. He put the arm in a well-fitting splint, and a month afterwards, when the apparatus was removed, the movements of the joint had partially returned. He mentioned several other cases where good results had been obtained in this way. He advised the same form of splint used for fracture of the radius.

M. Lannelongue stated that he saw a great many fractures at the elbow joint—about thirty a year. For eighteen months he had followed the method of treatment recommended by Giraldès, and the results were very disastrous.

The reduction of these fractures was often difficult, and required the use of a considerable amount of force. When this is done, measures have to be resorted to to keep the fragments in apposition. If the sling only is employed, the movements of the child cause an arthritis, and if consolidation occurs, the joint is greatly deformed. The upper fragment is the seat of an enormous mass of callus, and at the anterior part of the joint the amount is often so great as to interfere very much with the movements of the joint. If an effort is made at the end of thirty or forty days to make a movable articulation, fragments of the new bone are broken off and remain in the joint or about it. His custom is to place the limb in an immovable apparatus at a right angle, and let it remain for two months or two months and a half. Generally, at the end of this time electricity has to be employed to stimulate the muscles, which are positively atrophied. In spite of all treatment, it may be one or two years before extension can be made, and in some cases at last the results are very unsatisfactory. Fractures at the elbow joint are always extremely serious in children, and it is advisable to be very careful with respect both to prognosis and treatment.

Anæsthesia by Bromide of Ethyl.—At the same meeting of the Société de Chirurgie, M. Berger made a brief report on M. Gosselin's experience with the new anæsthetic, which is attracting so much attention in this country.

Gosselin found that it produced considerable restlessness, cyanosis, irregular pulse and dilated pupils. The blood from the wounds was very dark during the operation. The anæsthesia was not complete, the patients feeling the incisions when they were made. The return to consciousness was very prompt, but Gosselin thought that asphyxia was to be apprehended, and that this agent should be employed with very great caution as a general anæsthetic.

At a previous session of the Société on March 17th, M. Terrillon had spoken favorably of its action as compared with chloroform, and had recommended it, especially as a local anæsthetic, stating that it was far preferable to ether under such circumstances, being much more prompt, and being, further, preferable in that it causes no sensation of burning when applied to an open wound, as ether does.

The bromide of ethyl is easily made, and can readily be obtained chemically pure. It is employed with a spray apparatus just as ether is. Chloride of methylene, which is employed in Germany, is less volatile, and irritates the edges of the wound.

Bloodless Treatment of Small Tumors.—Dr. Dohrn read a paper on this subject before the Medical Society of Schleswig-Holstein in November last, an abstract of which was published in the *Allg. Med. Centralb. Zeitung*, No. 2, 1880.

He claims that the results of the treatment are very satisfactory. No assistance is required, no cutting instruments are used, and the little operation is so slight that it does not keep the patient from his customary occupation for a moment. It is sufficient only to pass a thread or cord through the tumor to give, in many cases, complete relief. The mode of procedure is as follows: A single or double silk thread should be passed, by means of a needle, through the long diameter of the growth. A single transfixion is, as a rule, sufficient. Both ends of the thread are then brought up and tied over the top of the tumor. In the case of large growths, he recommends that the threads be passed through in two directions at right angles to each other, and it may be necessary to use a rather stout thread in these cases.

The reaction in such cases is almost *nil*. After a few days, even though the thread be left entirely alone, a thin fluid commences to flow out of both orifices. Soon afterwards a thicker fluid is discharged, and the tumor commences to diminish in size. After the sides of the growth have fallen together, the thread may be removed, if it has not been thrown off previously. In this way, Dr. Dohrn has treated not only cystic tumors, but solid ones as well, in various localities.

In the first class, he mentions hygromata on different parts of the body, such as the knee-pan, elbow, etc. He has found the treatment very efficacious also for ganglions, the "bloody" treatment of which is usually so much dreaded. In the so-called "atheroma" on the scalp also, which occasionally occur in such numbers as to make it objectionable to use other modes of treatment, this method gives most satisfactory results. He advises this little operation also in the case of lipomatous tumors and sarcomata, even when the latter are of rapid growth. The treatment is especially applicable in those cases where the tumor is situated on the face or neck, when it is very desirable to avoid a scar. Another advantage which he mentions is, that often a large suppurating surface is left after the removal of even moderate-sized tumors with the knife, which is entirely avoided when the thread method is employed. And then there is no tedious and exhausting suppuration to be withstood before the patient recovers.

[Would not the discharge set up by the threads have a similar tendency to produce debility?—W. C. D.]

Analyses, Selections, etc.

Prepared by HUGH M. TAYLOR, M. D., Demonstrator of Anatomy, etc., Medical College of Virginia, Richmond.

Sterility in Women.—Dr. Harry L. Sims, of San Francisco, Cal., read a paper of interest at a recent meeting of the San Francisco Obstetrical Society, which is published in the *Western Lancet* for May, 1880. McIntosh was the first to begin (about thirty years ago) the treatment of sterility in the right direction, by dilating the cervical canal with bougies. Then Sir James Y. Simpson followed by incising the cervix to make the canal permanently open. But these means will not always cure sterility. Among the causes of sterility may be named the existence of a polypus, fibroid tumor, malposition, painful dysmenorrhœa, contracted cervical canal, flexed cervix, the presence of an abnormal utero-cervical secretion which kills the spermatorrhœa, etc. Incising a flexed cervix should not be attempted until we determine, without doubt, that such a condition is the cause of the sterility.

Three questions are to be determined at the outset of the treatment of cases of sterility: 1. Are spermatozoa in the semen? 2. Do they get into the utero-cervical canal? 3. Do the secretions in the canal poison the spermatozoa?

If no spermatozoa are found in the semen, the uterine condition needs no treatment. If spermatozoa do exist in the semen, but do not enter the cervical canal, then arises the question of the propriety of the operation, so that they can enter the canal. If, however, the spermatozoa do enter the canal, then, as a rule, no surgical interference will be necessary; and if large numbers of spermatozoa, alive and active, be found there, then the case will need no treatment at all. But should they be found in the canal, and all dead, or nearly so, then it is evident that it is the secretions of the utero-cervical canal which kill them, and the cause of this abnormal secretion is to be looked for and treated.

In studying his cases, Dr. Sims first takes down a history of the case in hand. Then he examines digitally and with speculum, to find the condition and position of the uterus and its appendages. Then with a small rubber syringe (previously rinsed in moderately warm water) with a long glass nozzle, the point of which is shaped like an inverted cone (so as to hold on to any tenacious mucus more firmly), he removes some of the vaginal secretion found near the os.

He next removes some of the secretion protruding from the os; and finally drawing the uterus forward with a tenaculum, he takes a third sample of the secretion from as high up as the os internum. All three of these samples are placed on as many object glasses, and examined under the microscope. If spermatozoa are found in the specimen taken from the os internum, of course they can enter the uterine cavity; and therefore sterility is not due to the size of the cervical canal, and no operation is necessary. But if the spermatozoa are found in the vaginal secretions and not at all in the cervical secretions, then flexure or contraction is the cause of the sterility, and the remedy lies in straightening or enlarging the canal.

But one such microscopic examination is not to be considered conclusive. Sometimes four or five examinations are made, and no spermatozoa found at all. In that case, perhaps the vagina expels the semen as soon as the woman assumes an upright posture. In such a case, Dr. Sims requests to be allowed to come to the residence in the morning and make the necessary examination. He cautions the patient to remain in bed until he comes, and tells the husband how necessary it is that coition should take place in the morning before rising. He has never yet had a patient or her husband become vexed at, or refuse to accede to his request, when explained to them in a clear, scientific light, and the reasons given therefor. Then he takes the specimens as before described and examines them at his office as soon as possible. This is the mode of treating sterility as practised by his father, Dr. J. Marion Sims—conclusions arrived at after many years of patient study and experiment.

The normal secretion of the cervix should be as clear and translucent as the white of an uncooked egg; and when this secretion is full of little snow-white specks, it is always inimical to the viability of the spermatozoa. While treating the patient, he always examines the cervical mucus every few days. At the beginning, the spermatozoa are all found to be dead. Some time afterward, as the case progresses, perhaps about one-third will be alive and the rest dead; then, later on, about half dead and the other half alive; and still later, maybe nearly all will be alive, with but a few inactive ones; and when, finally, we can take the mucus from the uterus and find the spermatozoa all alive and active thirty-four hours after coition, we may pronounce the case cured. But, before such a result is arrived at, a great deal of patience will be required, both on the part of patient and doctor. If, after

repeated examinations of the semen, taken from both cervix and vagina, no spermatozoa at all can be found, then the husband is undoubtedly the cause of the sterile condition, and no treatment of the wife will be of any use.

The operation of incision of the cervix for sterility is frequently condemned by members of the profession, saying they have done the operation on several occasions, but it was of no benefit. Unfortunately, the decision whether or not to operate depends, with a large proportion of learned and able practitioners, on the uterine sound or probe. If the uterine canal is flexed or contracted, so that the sound enters with great difficulty, an operation is advised. If, on the other hand, it enters freely, and without effort, any surgical interference is discountenanced. In either case, the condition of the size and shape of the canal may not be the real cause of the sterile state. The microscope will decide the question of operation or no operation in a very short time, and clearly proves what causes the sterility. There is one indisputable fact, and that is that the spermatozoa must reach the uterine cavity in order to produce pregnancy, and they must find a secretion which will not be inimical to their viability.

Having decided, with the aid of the microscope, that the sterility is due to flexed uterus, an operation is, of course, proposed. We will suppose it is a case of ante flexion. The operation Dr. Harry Sims always performs in such a case is the one originated by his father. The patient, being etherized, is turned on the left side, in the semi-prone position, and the Sims speculum introduced. The anterior lip of the cervix is firmly grasped with a tenaculum, and drawn well forward. Then, with the uterotome, the posterior lip is incised backwards almost to its intersection with the vagina. Then, with the curved blade of the instrument, the hard gristly band at the os internum is incised anteriorly. He next inserts Sims' dilator, which is on the principle of a glove stretcher, having three prongs, and thoroughly dilates the incised canal. This stops bleeding almost entirely. Being satisfied that the canal is now sufficiently large, he inserts one of the glass or hard rubber plugs, taking care that the plug is not long enough to touch the fundus uteri. To keep the plug in position and prevent bleeding, he tampons the vagina with iron or alum cotton. The former is made by dipping absorbent cotton in a solution of liquor ferri subsulphatis, 1 part in 3 of water; the latter is a solution of alum, 1 part in 12 of hot water. This cotton is removed piecemeal, a little being taken out each day. The plug is to be taken out on

the fourth or fifth day, when the cut surface will be found to have healed beautifully around it. Let the patient remain in a recumbent posture, so that there will be no danger of the plug slipping downwards. The operation is not a risky one, if proper care is taken. He has performed it many times in the last seven or eight years, and has not had any one die from its effects. He has several times had cellulitis to follow the operation, but with no serious results beyond the inconvenience of a longer stay in bed than was expected. If the case is one of retroflexion, the incisions are simply reversed.

Where the uterus is perfectly straight, with the canal contracted, he makes the bilateral incision, and treats it the same as a flexion. Dr. Emmet objects to the bilateral operation, saying it leads to the same results as lateral laceration in labor, namely, eversion of the lips and ulceration of the eroded surfaces. But in the hundreds of operations Dr. Harry Sims has seen, no such result has ever occurred. The reason these symptoms occur after labor, says Dr. Virgil Haddon, in a recent number of the *Boston Medical and Surgical Journal*, is because the womb is then in a state of fatty degeneration and does not readily take on reparative action; besides, at that time, the weight of the organ presses the cervix against the posterior wall of the vagina and forces the lips apart, causing them to roll out as far as the angle of laceration.

The operation for incision of the cervix, as now performed by Drs. Marion and Harry Sims, is a very great improvement over the manner in which they used to perform it three or four years ago. Instead of using the dilator and glass plug, the incised canal was kept open by a cone-shaped pledget of iron cotton, which was removed at the end of three or four days. Sometimes this plug would have to be hastily removed, within twenty-four or forty-eight hours after the operation, on account of a sudden rise in temperature and feverish pulse, preceded by a chill. This was caused by the absorption of poisonous matter from the cotton plug, the iron undergoing decomposition and giving rise to a black, offensive-smelling discharge. But this was the exception and not the rule. As now performed, the operation has no such danger, and the using of the dilator makes the straightening, or widening of the uterine canal much more complete. Since the introduction of the dilator and glass plug, the final results of the operation are more satisfactory than before; pregnancy more frequently results.

DISCUSSION.—Dr. Hutchins remarked that he had seen two

cases of sterility attended with or dependent on a membranous exfoliation of the uterine lining membrane. One of them occurred in a patient who, married at 20, had menstruated but once during the year subsequent. The menses then appeared once every four months, the period being attended with discharge of membrane. Under electricity the menses became regular, and the membrane disappeared. On suspending the electricity, however, the amenorrhea returned, and with it the discharge of membrane. The constant current of 10 to 20 cells was employed.

Dr. Beverly Cole referred to one point in Dr. Sims' paper which had attracted his particular attention, namely: that semen containing living spermatozoa had been extracted from the cervical canal 30 hours after coition. Not having made the experiment, he was in no position to speak definitely on the point; but he had hitherto been under the impression that spermatozoa could not survive 30 hours. Coste and others establish the fact that the ovule dies within 10 or 12 hours after expulsion from the Graafian vesicle, and thence draw the conclusion that fertilization must take place high up in the Fallopian tube, or perhaps at the ovary itself. But if the ova die in 12 hours, he marvelled that the spermatozoa should live 30 hours, and be then found in the cervix in an active state. He had detected them 8 or 10 hours after coitus, but they were not then very active, and he had inferred that if the ovule dies in 12 hours, the other element would not survive a much longer period.

Dr. Chismore asked Dr. Sims if, in the course of his investigations, he had found spermatozoa alive 30 hours after coitus.

Dr. Sims replied that he had found them living after 36 hours, and so also had his father. Their survival depends in great measure upon the character of the cervical secretion, which, if noxious or acrid, will kill them in a short time.

Dr. Burgess had read somewhere that spermatozoa in certain of the lower animals remain viable 8 or 10 days.

Dr. Whitwell considered the modern method of dilating the uterine canal with the "glove stretcher" instrument, followed by the glass plug, as an improvement on the old operation. The danger of hæmorrhage is lessened, and the canal remains patent, and pregnancy more frequently follows.

Salicin.—Dr. G. W. Winterburn, of New York, N. Y., says that salicin has toxic effects similar to those of cinchona. Under its influence, the expression becomes dull and heavy, the face flushes, the eyes are suffused, and the

breathling is quickened and deepened. There is frontal headache, noises in the ears, and sometimes complete deafness. The voice becomes thick and husky, and there is distressing burning in the throat, nausea and vomiting, catarrh of the stomach and intestines, with diarrhœa; and, if persisted in, ulceration of the stomach and intestines is induced, accompanied with great muscular weakness, fever, delirium and involuntary evacuations of fæces and urine. It is eliminated by the urine, sweat and saliva. It is an anti-ferment and antiseptic. When finely powdered and dusted over foul and indolent ulcers, it is an almost unrivalled remedy.

The glycerole of salicin (a half drachm of salicin to three ounces of glycerine) is useful as a dressing to bed sores and sloughing and gangrenous wounds; also to carbuncles and various forms of erythema and ecthema. It will sometimes check night sweats of phthisis. It may be administered with benefit in all chronic mucous discharges, and especially in catarrhal stomatitis and thrush. It has an anæsthetic property, evinced by calming the burning and gnawing pain. It is also useful as an astringent in pytalism. From its antiseptic virtue, the powdered bark of willow would make a healthful and cheap basis of tooth powder. Salicin spray—three grains to an ounce of water—is valuable in ulcerations of the nares, fauces and larynx. As it will destroy microzymes, it will be beneficial in hay asthma, rose cold and autumnal catarrh, and is likely to replace quinine in these disorders. It promotes digestion and appetite as a bitter tonic, and prevents fermentation of food. It is of special value in chronic diarrhœa and dysentery of children. It also tones up the mucous membrane, and prevents the formation of the slimy nidus in which the parasites thrive. It is almost exclusively employed in Spain and Portugal in the treatment of intermittent fevers. It has been employed in most febrile diseases, such as typhoid, typhus, pneumonia, scarlatina, diphtheria and measles; but its only action in these troubles seems to be that of an apyretic. It does, however, seem to have a real value in puerperal fever and septicæmia. It seems to possess an almost specific power to arrest the progress of acute rheumatism. Cases of diabetes mellitus have been cured with salicylate of soda, after resisting various other treatments. In endo-metritis, in the vomiting of pregnancy, and in the fœtid expectoration of phthisis, it has been successfully used. It is a powerful anaphrodisiac.—*N. Y. Med. Eclectic*, Jan., 1880.

Treatment of Fracture of the Patella.—At a recent meeting of the London Medical Society, Dr. R. Bell reported a case of ununited transverse fracture of the patella, upon which he performed the following operation: An incision four or five inches long was made in the long axis of the limb, over the fractured patella; the skin was dissected from the parts beneath; then the fibrous expansion between the ends of the bone was dissected from the condyles of the femur; a slice of bone was then taken from the free margins of the patella; two holes were bored through each fragment at a little distance from the margin, and strong, fine silver wire passed through them. Forceful traction failed to bring the ends together, nor would the fragments touch when the lateral attachments of the patella were divided. Hence it was necessary to divide subcutaneously the whole of the rectus femoris muscle and tendon three inches from the upper margin of the patella—a narrow-bladed bistoury being entered from the outer side of the thigh. By twisting the wires, the fragments were forcibly brought into contact. Bleeding vessels were tied with catgut; incisions were made into the joint on each side above the patella, for the passage of drainage tubes, and the limb was placed on a splint and inclined plane. A very small drainage tube was passed under the long incision, which was carefully brought together by carbolized silk sutures—holes being left to allow the silver wire to pass. The blood was well squeezed out of the wound made in dividing the extensor muscle, and a drain tube introduced. Protective oil silk having been applied over the various incisions, carbolized gauze wetted with carbolic lotion was applied over a quantity of loose, dry gauze to absorb discharges. The limb was then placed on a McIntyre splint and kept well raised in bed. The case progressed uninterruptedly. The operation was done on July 12th; all stitches were removed by the 21st, and the drain tubes on August 6th. Passive motion was then commenced. The patient left his bed September 5th. He can now flex and extend his knee, and can walk without a stick. There is, apparently, perfect bony union of the patella.—*Med. & Surg. Rep.*, Jan. 10, 1880.

[Apropos to this subject, we would mention a method which we have tried and have seen tried, which promises to simplify the treatment of these troublesome cases very much. We allude to the application of the plaster bandage. It combines simplicity, cheapness and efficiency. It should be applied in the usual way, from the foot to the middle of the thigh. A figure of 8 turn should be made around the knee,

so as to draw the fragments together. The limb should be extended so as to relax the ligamentum patellæ. Our attention was first called to the method by seeing a case treated by Dr. Brock.—H. M. T.]

Subacute and Chronic Non-Suppurative Inflammation of the Tympanum and Eustachian Tube.—In a clinical lecture (*Medical Record*, January 10, 1880), Dr. Oren D. Pomeroy, of New York city, gives the following definition and rules for diagnosing and treating this not uncommon and very obstinate disease of the ear. Generally, he says, we expect acute inflammation of the tympanum to be more or less self-limiting, and if the subjects have a constitution which is not tuberculous or affected with any dyscrasia, the disease goes on to a satisfactory termination. But frequently a lingering inflammation remains after most of the symptoms have been subdued, denominated subacute or chronic non-suppurative inflammation of the tympanum. The *subjective* symptoms are hardness of hearing, tinnitus, vertigo, defective memory, dullness of mental perception, unnatural sound of external noises, etc. Hardness of hearing depends upon hyperæmia and thickening of the lining membrane of the tympanum, and to sunken drum membrane, with impaction of the base of the stapes in the oval window. This is due to the difference in the air pressure on the outer portion of the drum membrane and the inner. The membrane of the round window is also put upon the stretch—the bulging being towards the tympanic cavity. The lowering of the hearing in this instance is accomplished by interference in the passage of the sonorous undulations to the labyrinth consequent upon this pressure. The sensitiveness of the nerve may be so great that every pulsation of the heart and artery is painful or noticeable. We have then what is known as pulsatory tinnitus. The Eustachian tube is closed either by a collection of mucus in the faucial portion of the tube, or by a catarrhal swelling of its mucous lining, thus diminishing its calibre. Ordinarily, we should hear without being conscious of it. In the early stages of the disease, the meatus may be smeared with cerumen, which is too thin, too thick, or in undue quantity; while later on there may be a complete absence of cerumen, and explained in this way: Earlier in the disease there is a hyperæmia—we might say, irritable and hyperæmic ceruminous glands. They secrete too much, which is altered in quality. After awhile, they become anæmic and atrophic, and the secretion is diminished. The epidermis of the drum-

membrane is frequently loosened, more or less dilated, and occasionally slightly lacerated, thus giving the membrane a scurfy appearance. The meatus is reddened and sensitive, and presents other indications of the progress of subacute inflammation. The drum membrane should be gray and translucent, somewhat of the appearance of mother-of-pearl. In disease, the membrane is opaque or red, with peripheral injection, and minute blood-vessels shooting in towards its center. The symptoms observable in the Eustachian tube are generally associated with, or dependent upon, some form of diseased throat. Mild cases in young subjects generally recover. The great trouble is, its proneness to relapse; and each subsequent attack renders the patient deafer. The first indication in the treatment is to arrest the inflammation; the second is the management of the Eustachian tube; the third is the bringing of the drum membrane back into its proper position; the fourth is to dispose of the products of inflammation. The inflammation is controlled by applying leeches, blisters, iodine and nitrate of silver. The management of inflammation of the Eustachian tube is by general treatment of catarrhal symptoms, as well as by treatment of the tube itself. Paracentesis of the drum membrane is often serviceable for the relief of the sunken condition of the drum membrane. It is as good for the relief of the tinnitus as anything the writer has tried. The *rationale* of its use is this: Every time a puncture is made, a cicatrix forms, and hence, contraction of the membrane tends to diminish the sunken condition. To dispose of the products of inflammation, he advises bringing the patient's health up to the highest state possible, by the use of mercury and iodide of potassium.

Toxical Effects of Tea.—Dr. W. J. Morton, of New York, arrives at the following conclusions concerning the pernicious effects of immoderate tea-drinking: 1st, With tea, as with any potent drug, there is a proper and improper dose. 2d, In moderation, tea is a mental and bodily stimulant of a most agreeable nature, followed by no harmful reaction. It produces contentment of mind, allays hunger and bodily weariness, and increases the incentive and the capacity for work. 3d, Taken immoderately, it leads to a very serious group of symptoms, such as headache, vertigo, heat and flushing of the body, ringing in the ears, mental dullness and confusion, tremulousness, nervousness, sleeplessness, apprehension of evil, exhaustion of mind and body, with disinclination to

mental and physical exertion, increased and irregular action of the heart, and increased respiration. Each of the above symptoms is produced by tea-taking in immoderate quantities, irrespective of dyspepsia or hypochondria, or hyperæmia. The prolonged use of tea produces additional symptoms of these three latter diseases. In short, in immoderate doses, tea has a most injurious effect upon the nervous system. 4th, Immoderate tea-drinking, continued for considerable time, with great certainty produces dyspepsia. 5th, The immediate mental symptoms produced by tea are not to be attributed to dyspepsia. In experimenting upon himself, the whole group of symptoms was produced, with no sign of digestive trouble superadded. 6th, Tea retards the waste or retrograde metamorphosis of tissue, and thereby diminishes the demand for food. It also diminishes the amount of urine secreted. 7th, Many of the symptoms of immoderate tea-drinking are such as may occur without suspicion of tea being their cause; and we find many people taking tea to relieve the symptoms which its abuse is producing.—*Journal of Nervous and Mental Diseases*, Oct., 1879.

Food Adulterations.—A Chicago chemist has recently made the following statement: At the request of a highly respectable citizen of Chicago, he examined fourteen brands of sugar, bought in this city—some granulated, some white, some colored, some coarse, and some fine. In twelve of the samples, he found tin in the form of a chloride, an active poison. He examined several groups made essentially and entirely of glucose, and found in them chlorides of tin, calcium, iron and magnesia, and in quantities which made them very poisonous. In one case, a whole neighborhood was poisoned, and the doctor was told of one death. He has, in several cases, found sugar of lead in vinegar. He uses fruit acids in place of vinegar, such as lemon juice, etc. Pickles he has found, in various cases, to be poisoned with copper and lead. The cheap tinware sold in our markets are dangerous to use for canning fruits, vegetables, meats or fish. They are liable to contain lead and tin—both active poisons. He has found, in many baking powders, alum instead of cream of tartar—a thing dangerous and injurious in all cases. Almost all the hair cosmetics are poisonous, and many of the face powders contain arsenic or lead.

Another chemist, in the same city, says he never uses the vinegar or pickles sold in our market. Sulphuric acid is used in making much of the vinegar; lead is used in making

yellow pickles, and verdigris in making the green. He has examined a large number of specimens of oleomargarine, and has found in them organic substances in the form of muscular and connective tissue, various fungi, and living organisms which have resisted the action of boiling acetic acid; also, eggs resembling those of the tape worm. The French patent, under which oleomargarine is made, requires the use of the stomachs of sheep or pigs. This is probably the way the eggs get in. He regards it as a dangerous article, and would, on no account, permit its use in his family. He has made more than a thousand microscopical examinations of milk in this city, and not over ten per cent. of the milk sold here is wholesome and unadulterated.

Opium in Hypochondria.—From experiments and observations, Dr. W. A. Hammond, of New York, arrives at the following results concerning the action of opium: The import of them is, that small doses of opium, acting as a stimulant, increases the activity of the cerebral circulation, causing hyperæmia of the brain. A larger dose lessens the amount of blood in the organ and induces sleep. A still larger dose—one that may be regarded as overpowering—diminishes the power of the whole nervous system, lessens the activity of the respiratory function, and hence allows blood which has not been sufficiently subjected to the influence of the atmosphere to circulate through the brain. As a consequence, such a dose produces stupor, and sometimes, if large enough, even death. If, therefore, we have an anæmic condition of the brain to deal with, opium should be administered in small doses; if with a hyperæmic state of this organ, in moderate doses; while the cases in which very large doses are required are quite exceptional. Every physician has witnessed cases in which patients have had opium administered in inadequate doses with the hope of causing sleep, but in which the effect had been directly the opposite—a high state of mental and physical excitement. That melancholia is directly the consequence of cerebral anæmia, is very plausibly argued by Meynert and others. That hypochondria is likewise the result of a like condition, seems to be logically a fair inference. We have in it the same depressed condition of the cerebral functions, and we have—what of itself is a sufficient element in forming an opinion—a tendency to sleep, such as is inconsistent with the existence of cerebral hyperæmia. Moreover, the temperature of the surface of the head is throughout considerably less than the normal standard, and

the other symptoms are very analogous to those which exist in anæmic states of the brain. The ophthalmoscope very generally exhibits the fundus of the eye of a paler hue than is natural, and the vessels of the retina smaller and less numerous than in health. Such being, in all probability, the facts relative to the intra-cranial circulation in cases of hypochondria, we are justified in anticipating beneficial results from the use of opium in proper doses. In practice, such consequences very generally ensue; and in the employment of this drug, and its preparations in properly-adjusted doses, we possess means for combatting hypochondria, not exerted by any others at our command. In ordinary cases, he prescribes the sulphate of morphia in solution, in doses of from a twelfth of a grain to the sixth of a grain three times a day. The dose should, in no case, be large enough to cause sleep. The treatment should be persistently carried on for at least two months. It is rarely necessary to increase the proportion of morphine in the solution. The beneficial effects of the remedy are very soon exhibited. The tendency of the patient to introspection is diminished; the mind becomes more cheerful; the gloomy apprehensions vanish; the pulse increases in force, and the whole mental and physical condition of the patient is placed upon a higher level. When it is deemed necessary to discontinue the treatment by morphia, some tonic preparation, as, for instance, the compound tincture of cinchonia, should be substituted, and should be kept up for a week or two. During the whole course of the treatment, attention must be paid to the bowels, and with this view it is best to administer a mild purgative daily, such as a pill consisting of three grains each of extract of aloes and ox gall, and a third of a grain of podophyllin. It is best to give this systematically, even though there be no tendency to constipation.—*Goillard's Medical Journal*, Nov., 1879.

Extirpation of the Uterus.—Dr. J. Marion Sims (*Med. Record*) saw in Schröder's wards an interesting case of extirpation of the uterus for sarcoma. The operation had been performed about ten days before, and the patient was convalescent. She was nearly forty years old, and had a tumor about the size of an egg in the body of the uterus. A bit of it was scraped out with the curette, submitted to the microscope, and found to be malignant. Prof. Schröder then determined to extirpate the organ. He made the incision as for ovariectomy, drew the uterus up from the pelvis, transfixed the cervix with a double ligature antero-posteriorly,

just above the vaginal junction; tied one on each side, including the corresponding part of a broad ligament, just as Pean does; and then he amputated the body of the uterus from the cervix at the os internum. This left a raw surface about an inch and a half in diameter, which Pean and others have been in the habit of putting outside through the lower angle of the abdominal wound, and fixing it there as they did the pedicle in ovariectomy. The clamped pedicle and Listerism are antagonistic, if not incompatible. Professor Schröder did not wish to leave a sloughing pedicle outside; nor did he wish to leave a suppurating one inside the peritoneal cavity, and he hit upon this happy idea. He excised the cervix conically from the amputated surface down to the point at which it had been transfixed with the ligatures; and then he brought its thin edges together antero-posteriorly, and secured them with fine carbolized silk sutures. Thus the incised surfaces were brought in contact internally, leaving only serous surfaces in contact with the peritoneal cavity. It was beautiful in theory and successful in practice; for the patient recovered, with the pulse and temperature remaining very near normal all the time.

Pathology of Hip-Joint Disease.—Prof. S. D. Gross, in a recent clinical lecture, remarked that he has long taught that there can be no disease of this kind without a previous taint of the system, and that he has always maintained that where this predisposition exists, the disease may be called into existence by comparatively slight causes, such as blows or falls, or suppression of the cutaneous perspiration, which, in a healthy subject, could not be followed by such peculiar manifestations. When this tendency is present, trivial causes may produce serious consequences. He knows that his friend, Dr. Sayre, of New York, who has given a great deal of attention to this subject, holds that hip-joint disease may arise from ordinary injuries in a healthy constitution, but he cannot agree with him. We cannot, he remarks, by slight means alone, give rise to pulmonary consumption; there must be a constitutional predisposition, or else the tubercular deposit will not appear. It is the same with hip-joint disease. Bear in mind, then, that a constitutional predisposition of a peculiar kind always accompanies hip-joint disease.

The Effect of Castration on the Sexual Character and Instincts of Women.—In a paper read before the Pennsylvania State Medical Society, Dr. Wm. Goodell discusses at some length

this interesting question, and concludes that further than the inevitable induction of sterility, and the probable absence of menstruation, the deprivation of both ovaries no more unsexes a woman, than castration after puberty unsexes a man. In the one, the ability to inseminate is lost; in the other, the capability of being inseminated; but in both, the sexual feelings remain pretty much the same. He thinks the physical and physiological influence of the ovaries upon woman has been greatly overrated. In the popular mind, a woman without ovaries is no woman. Even Virchow has gone so far as to say, on these two organs depend all the specific properties of her body and her mind; all her nutrition and her nervous sensibility; the delicacy and roundness of her figure, and in fact all other womanly characteristics. Battey notes in his cases the persistence of aphrodisiac power. Nor in any of them was there a loss of the womanly graces, but, on the contrary, the patients gained flesh and became more attractive. Analogous opinions are expressed by Hegar and Wells. The latter reports the case of a teacher of singing, who wrote to him three months after the operation, that her voice became stronger after the operation, and that she could sing from A up to C naturally. Peaslee writes that double ovariectomy as a rule is not followed by any loss of the special characteristics of woman—the only decided physiological change being a final cessation of menstruation, as well as of ovulation. Three of his patients were married and highly educated; after recovery, they again became splendid examples of womanhood, enjoying the most perfect health, and retaining all their former attributes of mind and body, and with undiminished sensory capacities in their matrimonial relations.

[Such emphatic statements from such eminent authorities should be, in themselves, conclusive; but we will add that the correctness of their observations has been borne out in two cases which we have had the opportunity to observe since Battey's operation was performed upon them by Dr. Hunter McGuire. Certainly, so far as their physical and mental conditions are concerned, they are to be congratulated. In one of them, nature has been particularly lavish in her endowments; in fact, it is exceedingly rare to see such a combination of symmetry, beauty, grace and refinement. As they are both young ladies in the higher walk of life and unmarried, nothing is known as to their sensory capacities.—H. M. T.]

Reflex Sciatica and Lumbago Caused by Stricture of Urethra.

Dr. T. S. Dabney reports the case of Mr. C., æt. 50, of powerful frame and vigorous constitution, who twenty years ago suffered from gonorrhœa, which persisted for many months, in spite of due treatment. He suffered no ill-effects from this persistent gonorrhœa, until five years ago, when he was compelled to quit work on account of a severe attack of lumbago and an incessant desire to micturate. At times, micturition was extremely painful, and could only be accomplished whilst taking a hot hip bath. Attacks of sciatica, lumbago and other neuralgic affections of more or less gravity, have occasioned him much trouble since his first attack, five years ago. He spent several months at Hot Springs, and has been under the treatment of several distinguished physicians; but with one accord, they adopted the usual palliative treatment for lumbago, etc. About three months ago, his sciatica and lumbago forced him to keep his bed. His sufferings were described as having been extremely excruciating, necessitating the free use of opiates. A careful examination with the bulbous bougie disclosed the existence of two strictures—one just behind the meatus; the other, in front of the bulbous portion of the urethra. The patient was at once put on full doses of quinine and opium, and was sent to his room to rest until the next day. The passage of the instrument to examine him entirely relieved all neuralgic symptoms for several hours. Next day (17th), the first stricture was cut with a bistoury, and the second treated by dilation. From the moment the first stricture was cut, all pain vanished to return no more. On the 16th, he came to New Orleans on crutches; on the 22d, he walked three miles for recreation. In three days from the time of his arrival, he was able to walk without pain or stick, and in ten days was discharged cured.—*New Orleans Med. and Surg. Jour.*, April, 1880.

Consumption a Nerve Disease.—Dr. J. J. M. Angear, of Fort Madison, Iowa, has been so much struck with the similarity between some of the symptoms accompanying diseases of the nerves or nerve-centres with those of consumptive patients, that he is forced to ask the question, May not consumption be a nerve disease? He is led to think so, first, by the peculiarity of the sweating, especially about the head, neck and chest. Sudoriferous glands, like other glands, are more or less under the control of nerve influence. How common to see the face of an embarrassed speaker drenched in perspira-

tion! He thinks we have been too ready to dismiss the matter of night-sweats simply as evidence of debility. What is more common than to have night-sweats, even in the most robust person, after an ordinary attack of ague, or intermittent fever? If we stimulate the sciatic nerve of a dog, we observe sweating of the toes in proportion to the stimulation. Bernard divided the cervical sympathetic nerve in a horse, and the operation was accompanied by copious perspiration on the side of the face and neck; and by galvanizing the divided ends of the nerve the sweating was arrested. This is the sweating peculiar to consumption. Dr. Angear has a patient in the hospital of the penitentiary whose mental condition is not normal, and at times he is decidedly insane. The only physical difficulty, except constipation, is the profuse perspiration. He not only wets his personal clothing so that water can be wrung out of them, but the bed-clothes are saturated with this abnormal sweating. This is a clear case of sweating from nervous disease. Insanity is a disease of the brain. The majority of insane persons die of lung troubles—pneumonia, gangrene and consumption. It is noticed that insane consumptives get better of the insanity as the disease of the lungs gets worse, and as the lungs get better, the insanity gets worse—thus showing that there is at least an intimate connection between disease of the nervous and respiratory systems. Alcohol produces nervous diseases. Richardson, in his “Modern Diseases,” speaks of alcohol producing consumption, and also of having observed thirty-six cases. Here we have a transposition, as it were—consumption taking the place of delirium tremens. Chambers, in his “Renewal of Life,” speaks of two cases of consumption following delirium tremens, as if the two were very intimately connected. In the spring of 1863, the author had a patient whose great toe was badly crushed by a log rolling upon it. The patient was very nervous, and from the first said it would kill him. He lost his appetite, became sleepless, wasted in flesh, cough set in, and in a few months he died of consumption. Had tetanus made its appearance, and he had died from that cause, all would agree that the crushed nerve in the toe was the cause of the tetanus which killed the patient. The writer claims that we can, with equal certainty, say that the crushing of the toe affected some other change in the nervous system which produced consumption instead of tetanus. He alludes to a fact well known, that exposure to wet or lying on damp ground will, at times, produce paralysis, and will also, at times, produce consumption;

and also to the fact that a large proportion of paralytics die of lung disease. In the summer of 1877, the writer was called to see a young man who, the summer previous, while shingling a house, was sun-struck. His health failed, but during the winter he improved. As the warm weather came on, he grew worse—losing flesh, having a cough, profuse sweating about the head, neck and chest, diarrhœa, etc.; in other words, he died of consumption, produced by change in the nerve-centre—the result of sun-stroke. Had he been paralyzed after the sun-stroke, and had he died from the effect of the paralysis, we should not have questioned the cause of the paralysis, nor of the death. In this case the consumption took the place of the paralysis. The writer takes it for granted that all will agree that we have nerves, whose office is to direct and govern nutrition, usually designated *trophic nerves*. He quotes Charcot as saying, “The skin, the muscles, the joints, the bones, and the viscera, may become the seat of various trophic disorders, consequent on lesions of the nervous system or of the nerves. Consumption, the writer claims, is now universally acknowledged to be a disease of nutrition; and the fact of our having nerves presiding over this function, is as universally acknowledged; and also that we may have a disease of the nerves of nutrition as well as of those of motion or sensation. To say that consumption is a disease of the trophic nerves is to say it is a nervous disease.—*St. Louis Med. and Surg. Jour.*, April, 1880.

Therapeutics of Acute Rheumatism.—Prof. Roberts Bartholow, of Philadelphia, introduces this subject by alluding to the fact, that in no disease is the influence of fashion in therapeutics more conspicuous than in the treatment of acute rheumatism, and by impressing the fundamental fact, that no single remedy can be rightly applied to every case of acute rheumatism. The most superficial inspection of cases shows that there are three classes of subjects who are attacked by rheumatism, viz., the cachectic, feeble and nervous; the obese, florid but flabby-tissued drinkers of malt liquors; the vigorous and able bodied, who have inherited or acquired a rheumatismal diathesis. Furthermore, it seems sometimes to be of a distinctly nervous origin; at least, we know that certain changes in the spinal cord, and injuries of nerves, are followed by joint inflammations similar to those of acute rheumatism; and again, that the circulation of some organic acid in the blood has seemed to excite rheumatic inflammation. This is shown in the acid urine and sweat, or by the

fact that by injecting lactic acid into the body, endocarditis and rheumatic attacks may be artificially produced. These forms and types, he declares, are so distinct that he who fails to take heed cannot properly adapt his means to the end in view, and must pursue merely routine methods.

Taking up first, the type of feeble, anæmic, nervous subjects, he asks the question, What method shall we pursue? The fashion of the times would direct salicylic acid or salicin; but experience and reason have taught him that this class of patients do not do well on it; they are much depressed by it, and have a tedious convalescence, with a strong tendency to relapse. In these cases he relies mainly on the tincture of the chloride of iron, and on small blisters around the affected joints. The iron acts probably by neutralizing the acid of rheumatism; the blisters also bring about a more alkaline condition of the blood. But they do more; they have a very marked effect in mitigating the pain, and patients soon learn this and ask for their repetition.

The cases of the second class require different management. They are the fat and flabby subjects, often excessive consumers of malt liquors, who suffer habitually with acid indigestion, and the usual concomitants of this state. Such subjects present a delusive appearance of good health. They will be found to have weak circulations, are easily put out of breath, tire on the least exertion, and often suffer from lumbago, neuralgia, and other so-called rheumatic troubles. When attacked with acute rheumatism, they are very apt to have endo- or exo-cardial complications. These cases he finds are most successfully treated by the alkaline plan. As soon as the urine exhibits an acid reaction and evinces a tendency to remain so, the alkaline treatment should be discontinued, and quinine and iron substituted; and if the attack is a severe one, blisters should be applied about the principal joints.

The third group of cases consists of vigorous subjects having an inherited rheumatic tendency. These are the cases so materially and quickly relieved by salicylic acid, and to a less marked degree by salicin. He prefers to give scruple doses.

Book Notices, &c.

Hypodermic Injection of Morphia—Its History, Advantages and Dangers. By H. H. KANE, M. D., New York. Chas. L. Birmingham & Co. 1880. 12mo. Pp. 354. Price, \$2.50. (From Publishers.)

This book is based upon the experience of 360 physicians

—mostly American—whose names and addresses are given on pages 328–337 inclusive. Every line of the book is interesting and instructive. While we cannot say that the arrangement is altogether sufficiently systematic for ready reference, this defect is greatly remedied by a very good index. The subject is a very important one, and this fact warranted us in publishing in full the series of questions asked by Dr. Kane, in our May number, in reference to a revised edition.

The conclusions drawn from the details as to the “localization” of hypodermic injections, the preparation of solutions at the time they are needed, the care required in keeping needles clean, etc., etc., are such as are generally recognized. The Doctor refers to the experiments of Dr. Geo. A. Foote, of Warrenton, N. C., which we have long ago published, showing “that hypodermic injections [of morphia] blunt tactile and pain sensibility sufficiently to admit of the performance of minor surgical operations, without the use of an anæsthetic.” Every practitioner of medicine should carefully study the lessons of vital importance which the details given in this book teach.

Rocky Mountain Health Resorts: An Analytical Study of High Altitudes in Relation to the Arrest of Chronic Pulmonary Diseases. By CHARLES DENNISON, A. M., M. D., etc., Boston. Houghton, Osgood & Co. 1880. 8vo. Pp. 192. Price, \$1.50. (For sale by Messrs. West, Johnston & Co., Richmond.)

This is a valuable contribution to the subjects of medical climatology and the effects of high altitudes upon chronic pulmonary diseases; and is the result of several years' compilation and hard study, by a capable and industrious author. Dr. Dennison claims that, for the arrest of consumption, the “ordinary therapeutic remedies are of little avail, compared with change of climate.” We are not to be misunderstood as attaching no importance to a change of climate when we say that Dr. Dennison lays too much stress upon high altitudes as compared with many other remedial conditions. But in this monograph, there is too much of valuable information for both the professional and non-professional reader to justify us, in a book *notice*—*not* a review—to mar by criticism. It is easier to criticize than to recognize what is new and important. This book should be in the hands of every medical man and others with tubercular tendencies, as it is replete with instructive suggestions from a real authority.

We ought not to close this notice without specially calling

attention to the special care of the publishers in issuing the book with great taste and utility. The first inside cover has a pocket which contains a "Chest Examination Chart," designed "chiefly for the purpose of studying lives impaired by *chronic* pulmonary diseases, with a view to the adoption of climate to their special needs." This port-folio pocket is also useful to travelers who wish to preserve notes regarding pulmonary conditions, etc.

Treatise on the Science and Practice of Midwifery. By W. S. PLAYFAIR, M. D., F. R. C. P., Physician-Accoucheur to H. I. and R. H., Duchess of Edinburgh; Professor of Obstetric Medicine in King's College, etc. Third American Edition, Revised and Corrected by the Author. With Notes and Additions by ROBERT P. HARRIS, M. D. With 2 Plates and 183 Illustrations. Philadelphia: Henry C. Lea. 1880. 8vo. Pp. 655. Leather, \$5; cloth, \$4. (For sale by Messrs. West, Johnston & Co., Richmond.)

The favorable reception of former editions of this work in this country, has induced the author to make a careful revision of this, the third edition, the practical value of which is enhanced by the notes and additions of the well-qualified American editor. Indeed, this book, as revised, both by the author and by the editor, is fully "up to the times," and is necessary to the library of every obstetrician. It is one of the first of the text-books to recognize and describe Porro's method of ablation of the womb and ovaries as a substitute for Cæsarean section; and a number of suggestions, original with American practitioners, such as quinia for after pains, etc., are duly credited and approved. The work is cordially recommended to all in need of a really practical book on obstetrics.

Manual of Pathological Histology. By V. CORNIL, Assistant Professor in the Faculty of Medicine of Paris; and L. RANVIER, Professor in the College of France. Translated, with Notes and Additions by E. O. SHAKESPEAR, A. M., M. D., Lecturer on Refraction and Operative Surgery, University of Pennsylvania, etc.; and J. HENRY C. SIMES, M. D., Demonstrator of Pathological Histology, and Lecturer on Histology, in University of Pennsylvania. With 360 Illustrations on Wood. Philadelphia: Henry C. Lea. 1880. 8vo. Pp. 800. (For sale by Messrs. West, Johnston & Co., Richmond.)

This work supplies, in great part, a want long felt among American students of pathology. The Translators and American editors have materially added to the value of the original text, by embodying many pathological facts of importance, which had escaped the observation of the authors, or which have been brought out since they wrote the book.

As compared with the French edition (which appeared in several portions, at intervals, extending from 1869 to 1876), the most important changes in this American edition are to be found in the sections on sarcoma, carcinoma, tuberculosis, the blood vessels, the mammæ, and the classification of tumors. The section on the "classification of tumors" is a most important one to practitioners who have any knowledge of the microscope—an instrument which is now essential to practitioners. The appendix, which is prepared by the American editors, contains a very useful series of directions as to the preservation and hardening of tissues, with numerous formulæ for different purposes. An excellent index completes this valuable book.

Modern Medical Therapeutics: A Compendium of Recent Formulæ and Specific Therapeutical Directions, from the Practice of Eminent Contemporary Physicians, American and Foreign. By GEORGE H. NAPHEY, A. M., M. D., etc. Seventh Edition, Enlarged and Revised. Philadelphia: D. G. Brinton. 1880. 8vo. Pp. 604. Cloth. Price, \$4.

We have so often had occasion to commend the former editions of this valuable work, that it is unnecessary now to say more than that this new seventh edition is an improvement upon all its predecessors, in that many new paragraphs have been added, and most of those which experience has not confirmed as equal to the claims made for them by the authors, have been omitted. Since there is very little left of the book as prepared by the lamented author of the first edition—so thorough have been the successive revisions by the present editor—it seems proper that Dr. Naphey's name should be omitted from the title page as the author, and that the name of the present compiler should be substituted.

Essentials of Anatomy. By WILLIAM DARLING, M. D., F. R. C. S., Professor of Anatomy, Medical Department New York University, and AMBROSE L. RANNEY, A. M., M. D., Adjunct Professor of Anatomy, Medical Department New York University. New York: G. P. Putnam's Sons. 1880. 8vo. Pp. 629. Cloth, \$4. (For sale by Messrs. West, Johnston & Co., Richmond.)

This is an excellent book in design, and the design has been admirably executed. It is intended "as a text-book for students, and as a book of easy reference for the practitioner." As a text-book, it is not intended that it should supplant such books as Gray's or Wilson's, or any other standard work of the kind; but simply as a supplement to which ever one the

college student may be using. As an easy anatomical reference book for the practitioner, it has no equal. Theoretical discussions and histological details are omitted; that which is purely practical and well approved only is given. We very cordially commend the authors' design in making each descriptive paragraph as little dependent upon those preceding it, as possible. As a guide book for professors or instructors of anatomy and surgery, it is well adapted. Indeed, our only criticism of the work with its present design is, that it should have been generally illustrated by diagrams or wood cuts. For, however well arranged may be the text, drawings do materially aid in the illustration and understanding of anatomical statements.

Guide to the Practical Examination of Urine. For the Use of Physicians and Students. By JAMES TYSON, M. D., Professor of General Pathology and Morbid Anatomy, University of Pennsylvania, etc. Third Edition. Revised and Corrected. With Illustrations. Philadelphia: Lindsay & Blakiston. 1880. 12mo. Pp. 183. Cloth. Price, \$1.50. (For sale by Messrs. West, Johnston & Co., Richmond.)

To make a satisfactory examination of urine does not ordinarily demand an exorbitant amount of either manipulative skill or chemical knowledge. This skill and knowledge every physician can and ought to possess, for the information to be thereby obtained is highly useful and constantly required. Little help, however, in this direction, is to be had from medical and surgical treatises, to whose chapters, on urinary disorders, the practitioner is wont to apply for aid; for while the chemical characteristics in question may be well described, the description is generally not sufficiently systematized to make it serviceable to the inexpert. On the other hand, the large works devoted exclusively to the examination of the urine contain more than the average doctor cares to learn or finds it needful to know. What he wants is a little book which briefly and to the point tells him how to analyze his sample and how to interpret the results. Now, Dr. Tyson's Guide does this very thing; and while it indeed claims from the reader a certain amount of studious attention, it asks no more than any one really willing to be taught ought to be ready to bestow.

We would suggest to the author, that he would materially enhance the value of his work if he would, for the benefit of the average doctor aforementioned, insert a scheme or table of systematic procedures in analysis of urine, similar to the very good one he gives for testing calculi.—W. H. T.

Lectures on Diseases of the Nervous System. By J. M. CHAREOT, Professor to the Faculty of Medicine of Paris, etc. Translated from the Second Edition by GEORGE SIGERSON, M. D., M. Ch., Licentiate of the King and Queen's College of Physicians, etc. With Illustrations. Philadelphia: Henry C. Lea. 1879. 8vo. Pp. 271. (For sale by Messrs. West, Johnston & Co., Richmond.)

There is no author in any country whose name has become the equal of Chareot as an *author* on nervous diseases; and many writers, to make themselves appear great, have "borrowed" from his facts and figures without even giving him the honor of a proper credit. Dr. Bourneville, of Paris, the editor of *Le Progres Medical*, and himself an eminent neurologist and investigator, has reported and edited these "Lectures;" and when we say this, we mean to affirm that every line or sentence written or spoken by Prof. Chareot, has passed a erueial examination. We should admit, however, that we find but few important additions by the Translator, when there is so much to add, even since Prof. Chareot delivered his "Lectures."

These "Leetures," unfortunately, are not complete enough to make the work a satisfactory text book for college students. For instance, catalepsy is not described, nor is athetosis, and other affections or diseases that should be described in a systematic course. We regret also to find that the American publisher has found it "inconvenient to reproduce" several of the plates of the "French edition," which give greater value to the original. But with these shortcomings, this work is *essential* to every specialist, or general practitioner, who has to contend with nervous diseases, as, in fact, every general practitioner has to do.

Practical Hand-book of Medical Chemistry Applied to Clinical Research and the Detection of Poisons. By WM. H. GREENE, M. D., Demonstrator of Chemistry in Medical Department of University of Pennsylvania. Philadelphia: Henry C. Lea's Son & Co. 1880. 12mo. Pp. 310. (For sale by Messrs. West, Johnston & Co., Richmond.)

This work is partly based on the well-known, but now somewhat antiquated, "*Bowman's Medical Chemistry*;" and if any special objection can be urged against it, it is that the author has departed quite widely from his excellent model. The methods of analysis, both qualitative and quantitative, are good, and the instructions very clearly given; and, on the whole, it is doubtless the best book of its class in our language.—W. H. T.

Editorial.

The American Medical Association will convene in New York (in the Hall of the Young Men's Christian Association, corner of Fifth Avenue and Twenty-third street), at 10 o'clock, Tuesday morning, June 1st. The programme as already partially arranged by the proper authorities, is most attractive, both in a scientific and social point of view. Several public and many private entertainments, as well as excursions, have been provided for. We fear that the effect of these over-bountiful arrangements for the social pleasure of the guests will prevent the visitors from taking that interest in the real scientific objects of the Association which would be manifested were the meeting in a smaller place, and where the temptations to stray off on sight-seeing and pleasure excursions were not so numerous. The programme calls for the reading of several important papers by leading authors; these authors should not have empty benches to which to communicate the results of their careful investigations in reference to this special occasion.

The only important codal question that we know will arise for decision at this session, is one that should have been disposed of during the session last year in Atlanta. It relates to the class of students that should be admitted into regular colleges. The masterly and exhaustive arguments presented last year, and which, no doubt, will be again presented by Prof. Dunster, of Ann Arbor, at the approaching session, can scarcely fail to convince all who are striving simply for the right that homœopathic, eclectic and other *special* students of medicine should be admitted into the regular colleges. The opposing argument or doctrine is similar to one which would exclude sinners from the churches where doctrines of Christian faith and virtues are expounded.

We have intimations, also, that some earnest and exemplary regular physicians, who have been made to suffer from the disobedience by other physicians of the "Code"—especially in reference to local tariffs, etc.—will make an effort to make the observance of the Code more obligatory, or else will ask that the restrictions imposed by the Code be removed, so as to let there be fair play. This is a subject which, for the good of the profession at large, must soon be finally disposed of; or else the temptations to "fight the devil with fire" will overcome dispassionate judgment. We have long since committed ourselves to the theory that it would be best to let every physician put his own monetary

valuation on his professional services—whether he chooses to be a “twenty-five cents doctor” or a two or three dollar one. Or else, let him charge *professional fees*, according to the gravity and other circumstances connected with a given case.

Protests Against Increase of Power of the National Board of Health have been forwarded to Washington from the Nashville Board of Health, the State Board of Health of South Carolina, the authorities of Darien, Ga., the Georgia Medical Society of Savannah, etc. The Congressional bill against which the chief protests are made is known as “the Harris bill;” and provides, in the main, that whenever any place is considered, by the National Board, as dangerously infected with contagious diseases, the President of the United States shall publish the fact; after which, “the transportation of goods or persons from such place into another State shall be unlawful;” and, of course, punishable.

The Kansas Medical Society, according to a recent decision of the State Attorney-General, Willard Davis, has no *legal* existence, and hence possesses no power to appoint a Board of Medical Examiners, under the act of the Legislature, approved February 27th, 1879, entitled “An act to regulate the practice of medicine in the State of Kansas.” It follows, that all examinations made, or certificates issued, by said Board, are invalid in law—leaving the holders subject to the penalties of the law for failing to comply with the requirements thereof.

Quarterly Epitome of Practical Medicine and Surgery is, practically, a new journal, being an *American* Supplement to *Braithwaite's Retrospect*. While we acknowledge, with great pleasure and from honest conviction, the superiority of this *American* “Retrospect,” over any attempt at rivalry, we must still regret the jealousy manifested by the Publisher, in his editorial, in criticizing so severely the earlier occupancy of the field by another worthy journal. Part I of this *Quarterly Epitome* is dated March, 1880, although, in truth, it was issued in May; but the cause of the delay is satisfactorily explained by the announcement of the long illness of the editor, whose name, however, is not given. This first number, including the “Index,” has 160 pages, and the annual price is \$2.50. It is furnished, in conjunction with “*Braithwaite's Retrospect*,” for \$4.50 in advance, free of postage.

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Original Translations.

From the German and French. By WILLIAM C. DABNEY,
M. D., Charlottesville, Va.

Syphilitic Tabes and its Treatment.—Some time in the course of 1879, Prof. Erb first stated (*Weiner Med. Blatt.*, No. 11, 1880) that there was a manifest connection between syphilis and tabes dorsalis. Recently he has subjected thirty-six cases to careful study and analysis. Three of the cases (for reasons not assigned in the paper before me) were abstracted from this number. Of the remaining thirty-three, only four presented no history of syphilis. Eighty-eight per cent., therefore, of the thirty-three cases had a syphilitic history. Of these twenty-nine cases, in twenty-four there had been secondary symptoms; in five, simple chancre, without secondary lesions. There does not seem to be the same connection between syphilis and other diseases of the nervous system. Of eighty-five persons suffering from various nervous affections, whose histories were carefully examined by Erb, only fourteen had ever suffered with syphilis. The difference is most striking.

Erb comes to the following conclusions with regard to syphilitic tabes dorsalis: The first symptoms of locomotor ataxia usually appear within ten years of the time of infection, generally during the second half of the decade.

[In two cases, of which I obtained an accurate history, the

first ataxic symptoms made their appearance, respectively, twelve and eighteen years after infection with syphilis. In one of these cases, however, there had been a previous attack of hemiplegia, and one pupil had remained dilated, though the paralysis had been recovered from.—W. C. D.]

In the great majority of cases, the syphilitic affections preceding the ataxia had not been seen. Affections of the skin, throat and loins had been observed, it is true, but they were slight, and relapses were rare.

It was rare also that the children of any of these patients showed any evidences of syphilis, and the author, in common with other writers on the subject, thinks it more than probable that ataxia is more common after mild syphilis than when the syphilitic manifestations elsewhere have been seen.

The actual pathology of syphilitic ataxia has not as yet been determined; and Erb thinks it very questionable whether it is anything more than a simple chronic inflammation.

In all cases, he recommends that cerebral symptoms be watched for. These are abnormal conditions of the pupil, paralysis of muscles of the eye, nocturnal headache, sleeplessness, unilateral twitching, temporary aphasia, hemiplegia, loss of consciousness, etc.

[In one case, a dilated pupil, remaining after hemiplegia had been relieved, gave me a clue to the cause of the disease when the patient first denied having had syphilis. The progress of the disease was checked by anti-syphilitic treatment, though there has been no marked *improvement* in the case. W. C. D.]

The cases reported by Erb show, as he claims, that syphilis is one of the chief causes, if not the most common cause, of locomotor ataxia. He thinks it questionable, however, whether syphilis is merely a predisposing cause, or whether it stands in a direct, causative relation to the nervous disease. He thinks it most probable that it has a directly specific action, and not simply a predisposing one, though he acknowledges that a non-specific meningitis, myelitis or arteritis may be set up by syphilitic, scrofulous, or other glandular tumors. From a practical point of view with respect to treatment, it is far more essential to understand the nature and causes of an affection than its pathological anatomy and symptomatology.

In conclusion, Erb states it as his opinion that, in the great majority of cases, tabes dorsalis is directly due to syphilis, and that when due to syphilitic poison, it is probably of a

severer form—a specific disease of the spinal marrow being present. In addition to this specific form, however, there can be no doubt that a simple form of tabes occurs.

The prognosis in these cases he does not consider favorable, since it is probable that there is a diseased condition of the nervous elements themselves.

[In the majority of cases which have heretofore been traced directly to syphilis, the progress of the disease has been checked by mercury and iodide of potassium—the latter being administered in large doses; but, as a rule, there is no permanent improvement and no repair of the damage to the nervous tissue already done.—W. C. D.]

Chronic Nicotine Poisoning from Cigar Smoking to Excess. Dr. Richter gives in this paper (*Rundschau*, April, 1880) a report of two cases of chronic nicotine poisoning from the long and excessive use of very strong cigars. One case ended fatally, and a *post-mortem* was held. The symptoms in both were the same, but were much milder in the second than in the first. They were a feeling of weight and heaviness about the head, giddiness, drowsiness, apathy and psychological disturbances, amblyopia, severe neuralgia, twitchings and contractions of certain muscles, weak and often irregular action of the heart, palpitation, great emaciation, impotence and severe attacks resembling angina pectoris. In the first case, in addition to these symptoms, there occurred attacks of severe dyspnoea, complete loss of appetite, and very severe, colicky pain. In the other milder case, there was marked hyperæsthesia of the acoustic nerve.

The diagnosis in both cases was made by exclusion, it being known also that strong cigars were used to great excess, and it being found further that the symptoms were relieved when the smoking was discontinued. The constant taste of tobacco, which has been mentioned by Dornbluth as a very prominent symptom of nicotine poisoning, was observed in both cases.

As predisposing causes of nicotine poisoning, Richter mentions general debility, alcoholism and affections of the brain and spine.

Of the different forms in which tobacco is used, smoking seems to be the most injurious, and especially “inhaling” the smoke of strong cigars. Taking snuff and chewing are less injurious.

Richter thinks that nicotine poisoning causes an anæmic condition of the central nervous system, as the autopsy in his case and in those reported by Bösch showed the meninges,

as well as the brain substance, to be pale and bloodless, the heart weak and flabby, and no blood in its cavities. In acute tobacco poisoning, on the contrary, there seems to be a very decided flow of blood to the brain. It is probable that nicotine exerts a directly poisonous influence, interfering with the exchange of gases in the blood, as well as acting on the nervous system. Experiments on animals show that there is a marked contraction of the blood-vessels after the administration of a toxic dose of nicotine. Besides these affections, nutritive disturbances are quite common. The contraction of the small arteries and the increase of the blood pressure are attributable to irritation of the medulla oblongata. The disturbances of respiration observed in some cases are to be explained in a similar manner.

With respect to prognosis, it was found that a rapid improvement occurred as soon the use of tobacco was stopped. Cold water treatment and galvanization also proved highly serviceable.

In the fatal case, the habit of smoking strong cigars could not be broken up; but the second case improved rapidly and permanently when the tobacco was omitted.

[The author does not mention strychnia as an agent commonly employed to relieve the effects of tobacco. There can be no reasonable doubt as to its value, though it has recently been called in question.—W. C. D.]

Laryngotomy through the Crico-Thyroid Membrane by means of the Thermo-Cautery; Ulceration of the Trachea by the Canula; Death from Hæmorrhage Due to Ulceration of the Common Carotid Artery.—This interesting case occurred at La Pitié in the service of M. Verneuil. The patient was a boy suffering from diffused laryngitis of high grade. For a time the symptoms were relieved by revulsives applied to the neck, and the patient left the hospital. Subsequently, however, he returned, with all his old symptoms much aggravated, and it was deemed advisable to perform tracheotomy. The thermo-cautery was employed as customary; and M. Verneuil insists very strenuously on the safety of his mode of operating, and the excellent results obtained by it. He claims that the objections which have been urged against it are imaginary and not real.

In this particular case, however, abnormal relations of the larynx and trachea produced troublesome complications. The larynx was situated much lower down than it ordinarily is; it reached nearly to the notch in the upper end of the sternum, and the trachea was so low as to be almost inaccessible.

The operation required, therefore, was laryngotomy and not tracheotomy. A similar operation was performed two months before in Verneuil's service by Dr. Krishaber, with complete success. In this instance, laryngotomy through the crico-thyroid membrane was not a matter of choice but of necessity.

Ordinarily, when laryngotomy is performed at this point it is "plain sailing"—there being no muscles between the skin and the membrane. In this case, however, the membrane was covered by muscles, and it was necessary to cut to a depth of more than two centimetres. The operation went on well, however, and the cricoid cartilage was reached without a single drop of blood being lost; but the crico-thyroid membrane could not be found. The cricoid cartilage was cut through by a bistoury, and penetrated immediately into the air-passages; the cut was about two centimetres in length, and extended from the thyroid through the first and perhaps the second rings of the trachea. The canula was introduced without difficulty, and immediate relief was experienced.

Things went on well till the seventh day, though it was observed that at each beat of the heart the canula was moved, which appeared to indicate that at each beat of the pulse the impulse was communicated to the instrument by an artery near by.

All of a sudden, however, one morning there was a profuse flow of blood, not only from the canula, but from the mouth and even the nose. This was checked in a few minutes by projecting a stream of water on the point from which the hæmorrhage came. M. Verneuil thought that the hæmorrhage came from some ulcerated point within the air-passages. A bladder of ice was applied, and injections of ether recommended in case of return of the hæmorrhage. A smaller canula was also inserted. Unfortunately, after spending a comfortable day, the hæmorrhage returned in the afternoon with such violence as to cause death almost instantaneously. M. Verneuil refers to the objection which has been raised to the thermo-cautery, that it is liable to cause secondary hæmorrhage, and then says that there was nothing of the kind in this case. He says that statistics show at least as many cases of secondary hæmorrhage in adults when the bistoury was used as when the thermo-cautery was employed.

In this case, an autopsy was obtained. It was found that the incision had been made about three millimetres to the left of the middle line. There was no crico-thyroid mem-

brane. The incision through the larynx and trachea measured, approximately, two centimetres. At the lower part of this incision was an ulceration about two centimetres long, probably made by the canula. This was due most likely to the rigidity of the cricoid cartilage. But the important point, which M. Verneuil says is hardly credible, was that the carotid artery had also undergone ulceration. The movements of the canula, synchronous with the pulse-beat, were due to its proximity to the artery, and the rigidity of the cricoid cartilage caused the instrument to press against the vessel with so much force as to cause ulceration. This case, says M. Verneuil, stands alone in the annals of surgery. It was due to an anomalous position of the organs and vessels. Had the cut been made a little lower, the arch of the aorta would have been divided, for it lay just behind the sternal notch. In conclusion, he reiterates the statement that the thermo-cautery is "absolutely harmless," and an invaluable instrument for tracheotomy.

The Danger of Vaccinating a Child Suffering from Some Cutaneous Disease.—There was an interesting discussion on this subject at the meeting of the Société Médicale des Hopitaux on the 23d of April last. We take the following abstract from *Le Practicien* of May 3d.

M. Lereboullet stated that he had recently seen a child suffering with impetigo and an eruption of the hairy scalp, who had been vaccinated in spite of this eruption. On the fifth day, more than a hundred vaccine pustules were developed on the face where it had been affected with impetigo.

M. Marotte saw the child with him, and said he had frequently seen similar cases.

M. Besnier mentioned a case in which a child six months old was vaccinated on the 18th of February with virus from a heifer; only two pricks were made, but in spite of this precaution, on the third day, pustules began to appear elsewhere, and on the fifth day they were quite numerous on both arms and at the site of the eczema. The eruption lasted about ten days, and was followed by an abscess in the axilla.

M. Constantine Paul said that while a generalized vaccine eruption was rare, it undoubtedly occurred sometimes. He had never been able to inoculate successfully from the pustules of this generalized vaccine.

M. Rendu said he had seen a generalized vaccine eruption in a young man, 17 or 18 years old. About the sixteenth or seventeenth day after vaccination, he was taken with an intense fever, and a number of vaccine pustules appeared.

M. Hervieux recognized the existence of such generalized eruptions, and said that Cazenave, who had at first denied their occurrence, had subsequently acknowledged their occurrence. He stated also that Prof. Strohl, of Strasbourg, thought that these generalized vaccine eruptions might give place to genuine small-pox, and prove the starting-point of an epidemic of this disease.

Proceedings of Societies.

AMERICAN MEDICAL ASSOCIATION*—PROCEEDINGS OF GENERAL SESSION.

FIRST DAY—*June 1.*—The thirty-first annual session of the American Medical Association convened in the Young Men's Christian Association Hall, in New York city, at 11 A. M., and was called to order by the President, Dr. Lewis A. Sayre, of New York city. The Secretary, Dr. Wm. B. Atkinson, of Philadelphia, was in his seat. After prayer by Rev. Dr. Wm. F. Morgan, of St. Thomas' Church, Dr. T. Gaillard Thomas, chairman of the Committee of Arrangements, delivered a most appropriate address of welcome.

Protests against registering delegates from the United States Navy and certain delegates from Alleghany county, N. Y., were referred to the Judicial Council.

Dr. Lewis A. Sayre then proceeded to deliver the *Annual Address of the President*. After some words expressive of appreciation of the honor he had received in being elevated to the Presidency of the Association, he made some retrospective remarks regarding the American profession. When the Association was organized, there were often envyings, jealousies and heart-burnings, fault-finding, and detraction. Now, each one seems so engaged in endeavoring to improve himself and elevate his own position in the profession, that he has no time to devote to studying his neighbor's faults, much less to accurately scrutinize and publicly herald his seeming defects. The science of medicine has been so much enlarged in all the different departments by the minute research now demanded, and by the great and rapid progress of many of its specialties, as to require that every moment of a man's time be occupied in the closest study if he would

*This report is compiled from the daily papers of New York city, from personal reports, original abstracts, and the very full reports in the *Medical Record*, and *Boston Medical and Surgical Journal*.

keep himself abreast with the daily improvements in our profession, and he who is thus occupied, has no time to study the defects of others. By this constant effort to improve ourselves and advance our science, the tone of the whole profession is elevated, and we already see that medical men are more and more respected by the community at large.

Let us review, briefly, what has been done by the profession in America for the improvement of medical and surgical science, and the relief of suffering humanity. Some years ago, Sidney Smith, one of England's most popular authors, said, in the *Edinburgh Review*, "The Americans are a brave, industrious, and acute people, but they have hitherto made no approaches to the heroic, either in their morality or their character. During the thirty or forty years of their independence, they have done absolutely nothing for the sciences, for the arts, for literature, or even for the statesmanlike studies of politics and political economy * * *. In the four quarters of the globe, who reads an American book? or goes to an American play? or looks upon an American picture or statue? What does the world yet owe to American physicians or surgeons? What new substances have their chemists discovered, or what old ones have they analyzed? What new constellations have been discovered by the telescopes of Americans? What have they done in mathematics? Who drinks out of American glasses or eats from American plates, or wears American coats or gowns, or sleeps in American blankets?"

It seems to me that the Declaration of Independence, and the willingness of Americans to sacrifice their lives to obtain it, were acts of heroism equal to any recorded in history. The organization of government under constitutional law, which has yielded such results as were never before obtained, is an evidence of statesmanship, and of knowledge in political economy, which has been seldom equalled and never surpassed.

As to the question of American manufactures and the nations that use them, we can safely refer to the reports of our Chamber of Commerce, for a satisfactory answer. American science has no need to be ashamed of its Henry and its Morse, its Bache, Peirce, Newcomb, Draper, Dana, Marsh, Gray, Hall, and its adopted Agassiz. Nor, has the *American Journal of Medical Sciences* anything to fear by comparison with its European contemporaries.

But to the question, "What does the world yet owe to American physicians and surgeons?" we will venture a more

extended reply, although time permits us to refer only to a few of our professional achievements.

First among the greatest boons ever conferred upon suffering humanity stands "anæsthesia," an American suggestion, and one that immortalizes the name of Morton. Who can ever estimate the value of this discovery? When we consider the fact that at every moment of time in some part of the civilized world hundreds, if not thousands, are receiving the benefits of this great discovery, the mind becomes overawed at the magnitude of the blessing, and even imagination fails to comprehend fully its benefits.

Ovariectomy, another American contribution by the medical profession, has done probably as much towards saving life as any other surgical discovery in the nineteenth century. It was first practised in 1809 on Mrs. Crawford, in Danville, Kentucky, by Dr. Ephraim McDowell. At the present time it is acknowledged as a proper operation, and Dr. Peaslee said that 'in the United States and Great Britain alone ovariectomy has within the last thirty years directly contributed more than thirty thousand years of active life to woman, all of which would have been lost had ovariectomy never been performed.'

In gynæcology the whole professional world cheerfully and gratefully acknowledges the original and valuable contributions of Sims, Thomas, Emmet, Peaslee, Atlee, Kimball, Taylor, Pallen, Dunlap, Minor, and others in this department.

The new operation of litholapaxy, as performed and described by Dr. Bigelow, of Boston, is one of the grandest triumphs of modern surgery, and of which any American surgeon may justly feel proud.

In conservative surgery we certainly compare most favorably with any other nation. In the mechanical treatment of diseases of the joints alone we are able to exhibit triumphs in surgery of which the American profession may well be proud. In the *Lancet* of Feb. 14, 1880, Mr. Roderick Maclaren, M. D., Surgeon to the Cumberland Infirmary, in his presidential address to one of the branches of the British Medical Association, on 'The Advances in Surgery during the past Twenty Years,' says: 'No account of the recent progress in surgery can justly omit the application of the principle of absolute rest to diseases of the vertebræ. It is done by enclosing the body in a plaster-of-Paris jacket. Though only introduced into this country about two years ago, it has established itself as an *incontrovertible success*.' This is another

triumph for American surgery, and is justly admitted, not only in England, but in all parts of the civilized world, and we feel that American surgery has a right to congratulate herself that she has contributed this great boon for the relief of human suffering.

In laryngology we can certainly claim Green as a pioneer, and the facts he established are now acknowledged by the entire scientific world. The improvements made in this department of surgery by Cohen, Cutter, Bosworth, Elsberg, Lincoln, Lefferts, Robinson, and many others in this country, entitle us to favorable rank with other nations.

I believe I have enumerated enough to justify the statement that if the distinguished author before referred to were to write now, he would express sentiments very different from those contained in the above quotation. Not content, however, with what we have already achieved, let us still press onward, and, accepting the motto of this great State, constantly cry 'Excelsior.'

The President then advocated the claims which the metric system had upon the Association and the profession, and then passed to the question of the *publication of Transactions*, and presented the merits of two plans, the volume and the journal form. As an example of the journal form, reference was made to the *British Medical Journal* of the British Medical Association.

The similarity of the two associations, in many respects, both in their organization and in their objects, is so great, that we may possibly learn something to our advantage by carefully studying the history of the older association, and profit by her experience, and, if necessary, by her example. The importance of the subject must be my excuse for bringing to your attention many details which otherwise might possibly be regarded as superfluous. * * * * *

These details are of importance to the American Medical Association, for they include the germs of an organization peculiarly adapted to American ideas. It is essentially democratic and entirely representative. It is dependent for its success on the intelligence, union, and good-will of the members. It is decentralizing, inasmuch as it tends to the formation and the strengthening everywhere of the local societies, which have thus throughout the year the means of making themselves heard in metropolitan centres, and of communicating with each other. Above all, it is a most successful and influential means of increasing the membership, and enlarging the power and widening the basis of the Association,

and of making it a living organization during the intervals between the annual meetings.

Finally, it has the great advantage of securing the largest amount of value to each and all of the members, for the smallest possible subscription. The *Journal* becomes, in fact, a co-operative enterprise in which *the profits resulting from their subscriptions go into their own pockets*, instead of those of any individual proprietor. *They own their own paper.* They are able to get the advantage of a powerful organization and of a first-class medical paper at the same annual subscription as that of a medical paper by itself, and with the surplus they find funds for the promotion of public and scientific objects, and the creation of a reserve fund for future public uses.

The total income from the *Journal* to the Association is \$70,000, of which \$25,000 comes from subscriptions to the *Journal* and \$25,000 from advertisements. The editor, Mr. Earnest Hart, is paid \$5,000 a year, and the sub-editor \$2,500, and \$5,000 are paid annually for contributions. A sum varying from \$1,500 to \$2,000 a year is devoted to original researches, and there is a yearly balance of from \$3,000 to \$5,000. Dr. Sayre said he did not see why a journal of this kind should not have as great or a greater success in America.

There seems no reason why an experiment so essentially in accord with American instincts and traditions, and one which has succeeded so well in England, should not have at least as great, if not a greater, success in America.

One point, however, that is specially worthy of note is, that the success of the *British Medical Journal* has been largely dependent upon the manner in which it has been conducted. The weekly *Journal* did little for the Association until it fell into the hands of an experienced editor, whose ability is so generally recognized that there is no need to dwell upon it, and to whom a large and unfettered responsibility is left, although he remains, of course, personally responsible to the executive body of the Association for the right use of the power entrusted to him, as every editor does to those who appoint him. It will be necessary to find for any organ which this Association may publish, an editor of recognized position, whom the Association would accept as its worthy officer and representative in so responsible a post—a man of literary skill, scientific knowledge, and journalistic experience, or, at least, journalistic instincts and tact. He should be paid liberally; he should be treated with respect, and from him ought to be expected a serious determi-

nation to use the powers entrusted to him with courtesy and fairness, and with one sole object, the elevation of the standard of professional knowledge and interests, the maintenance of a high order of professional dignity and mutual courtesy.

It is impossible to doubt that such a man can be found. Possibly, there may be many, and the question is one which appears to be well worthy of thorough examination by the council and members of this Association, because it seems tolerably certain that if, for the present bulky, tardy, little-read, and unproductive volume of Transactions, there could be substituted an active, vigorous weekly journal, read everywhere, and with a large income such as would naturally come to it from its advertising sheet, there would be in such a change the earnest of a rapid and important growth in the numbers, influence, and usefulness of the American Medical Association.

On motion, by Dr. Wm. Brodie, of Michigan, a vote of thanks was tendered to the President for his able address, a copy requested for publication, and the recommendations which it contained were referred to a committee of five to report upon during the present meeting.

Dr. Sayre, who has been sick for some time, was compelled to retire, and Dr. Beverly Cole, of San Francisco, California, one of the Vice Presidents, took the chair.

A number of distinguished medical gentlemen from different States were then elected members by invitation, and were accordingly announced.

Dr. Montrose A. Pallen, from the Committee on Arrangements, announced that provision had been made for a temporary Section on Diseases of Children.

Dr. Samuel D. Gross, of Philadelphia, after some touching remarks, moved that the Association tender to Dr. Sayre and his family their warmest sympathy in their sad bereavement by the death of Dr. Chas. H. H. Sayre, which motion was carried by a rising vote.

Dr. E. Seguin, of New York city, Secretary of the Foreign Delegation, etc., presented the report of the delegation on the *progress of medical international uniformity* as to weights and measures. On motion of Dr. Wm. Brodie, of Detroit, Mich., the report was ordered to be printed and to be laid on the desks of the members to-morrow morning.

Dr. Austin Flint, of New York, chairman of the Committee on Prize Essays, reported that the committee did not feel warranted in awarding a prize to any of the several essays presented.

After some routine announcements, the Association adjourned until 10 A. M. to-morrow.

In the evening, the entertainments consisted of a promenade concert and reception at the Academy of Music.

SECOND DAY—*June 2.*—The meeting was called to order by the President.

Dr. Gihon, Medical Director of the United States Navy, rose to a question of privilege. For some unexplained reason, the delegates from the Navy had not been admitted to participation in the proceedings, and when he, as their representative, requested to be enlightened respecting the cause of this exclusion, he was referred for information to the Judicial Council, where he was told that the matter would be investigated at the earliest practicable moment. He protested most emphatically against such an unwarranted proceeding as the exclusion of Fellows and delegates from the privilege of the floor, and wanted to be informed at once—not to-morrow when it would be too late—upon what grounds such exclusion had been decreed and the subject referred to the council.

Dr. Sayre—The matter is in the hands of the Judicial Council, and I must refer Dr. Gihon to that body. It is out of order to bring the subject in here; the Constitution is explicit in prescribing that the council shall determine all such questions.

Dr. Gilon—The determination of that Council, sir, will come altogether too late to be of any avail as respects the proceedings of this session. It is unprecedented that gentlemen properly accredited to the Association should be excluded from its deliberations, upon vague allegations, or none at all—possibly the anonymous statement of some enemy.

A Member of the Council—A letter has been received accusing certain delegates from the Navy of having used quack medicines. The communication was without signature, but the writer promises to furnish proof of his statements.

Dr. Gihon—The statement is false, from whatever source it comes. I pledge my personal honor to that, and I presume the pledge will be regarded as sufficient. I have no objection to the Council investigating any slanderous reports they may think proper to take into consideration; but I decidedly protest against the representatives of the naval service being excluded while the inquiry is pending. That would deprive them of rights and entail loss of time that cannot be repaired by any subsequent exoneration.

Dr. Sayre—I must still declare this discussion out of order, and refer the gentleman to the Judicial Council for redress.

Dr. Gross spoke briefly to the question, and ended by moving that the excluded delegates be admitted to the privileges of the floor pending the inquiry, which was carried nearly unanimously.

Dr. Bonham, of the Judicial Council, regarding the Allen County Medical Society, Indiana, referred the questions to the State Medical Society for adjudication.

Dr. A. Clendenen, of Fort Lee, N. J., introduced a resolution, accompanied by the draft of a bill, to re-organize the present National Board of Health, which was adopted and referred to the Section on Medical Jurisprudence. The reasons for the resolution were stated to be that "there have been many complaints as to the centralized, imperial character of the present National Board of Health," and that "the bills which have been pending before Congress for the increase of the executive power of the present board have been withdrawn."

Dr. Pratt, of Michigan, for the committee to consider the nine propositions submitted by Dr. Chaillé last year, reported unfavorably on all except the fourth, which contemplated the substitution of a medical journal for the present volumes of transactions. The committee, however, thought it safer to wait upon the law of growth than to adopt any radical change at present. The report was accepted.

On motion of Dr. James T. White, of Buffalo, N. Y., the appropriation of \$200 asked for by Dr. N. S. Davis, of Chicago, Ill., to be expended in instruments to investigate the subject of ozone, was voted.

Dr. J. S. Lynch, of Baltimore, Md., chairman of the *Section on Practice of Medicine*, delivered his report. While he had no extensive epidemics to record as having decimated the population of the United States during the last year, there were still some important facts established by experience with *yellow fever* in Memphis, which he regarded as worthy of attention. Observation with that disease had punctured many unfounded theories, hitherto accepted as true by members of the profession, and given the color of probability to views which not long since would have been considered wild and improbable.

The facts that he considered so fully established at date were: First, that yellow fever germs may lie dormant for many months during the cold weather, to be re-awakened to destructive vitality by the recurrence of the temperature at which they flourished best; and secondly, that the lowest temperature which prevails in the South is incapable of com-

pletely destroying them. The fact that the fever broke out in foci which it had established the preceding season, and radiated from such foci as centres of infection, he regarded as tending to substantiate the view that the germs of the disease, while rendered inactive by the temperature of frost, were, by no means, permanently disabled by a degree of cold which has been heretofore reckoned destructive of their virulence.

Dr. Lynch cited the case of the Plymouth as a classical illustration of the point he wished to impress—that yellow fever germs may have their activity abated, but are not destroyed by low temperatures. Built in 1868, on a cruise in sub-tropical and tropical waters, the disease broke out among the crew and raged with violence, notwithstanding hygienic regulations. The vessel proceeded to Boston for repairs, and lay in that port during an extremely severe winter—severe even for Boston, for the mercury fell to 17° below zero Centigrade. Having been overhauled and repaired, she shipped a new crew from Boston near the end of the winter, and started again upon a cruise in Southern waters. Only a few days after her departure from a non-infected port—having been subjected for some weeks to a temperature supposed to be destructive of bacteria, and having stopped at no port where the disease prevailed, and while upon the high sea, leagues from any possible centre of infection, the fever broke out on board and raged with great severity. Was not this, asked the speaker, an unquestionable proof that, while cold might suspend the vitality of disease germs, freezing was by no means synonymous with disinfection?

Another case which Dr. Lynch cited was, he thought, equally as conclusive respecting the germ propagation of yellow fever as the case of the Plymouth was of the inutility of low temperatures for disinfection. In 1877, a family, formerly resident in Augusta, Ga., removed to Fernandina, Fla., where the fever had never prevailed. They took with them a trunk in which clothing was packed. They were free from the disease, and were presumably safe from the destroyer. Some time after their removal, the trunk was opened, and, strange to say, after this event, in due season, but with a period of incubation unusually prolonged, the members of the family were attacked with yellow fever, marked as such by the unfailing phenomenon of black vomit. From this and other cases which the Doctor cited, the inference was drawn that yellow fever poison may be transported from one point to another like any other physical entity, retaining its po-

tency for evil, and manifesting it even in climates in which the disease seldom or never appears, and which are unfavorable to its development in the epidemic form.

The next point advanced, as a necessary conclusion from the facts furnished by the recent epidemics, was that yellow fever is essentially an infectious, but not, in the proper acceptation of the term, a contagious disease. It may be transported hundreds of miles in clothing, or other vehicles capable of subsisting it, to develop its own inherent virulence in a new centre, but it is not communicable from person to person, as small-pox and measles are. Contact with yellow fever patients was not perilous, but rather the reverse. The germs, whatever they were, must nidulate under favorable circumstances for a certain length of time before their virulence was developed. They did constitute in themselves a dangerous contagion, but were susceptible of development into an infection.

From the lesson of the recent epidemic, Dr. Lynch proceeded to the consideration of consumption, diphtheria, scarlatina, and the state of medical information concerning them—pointing out the constant relation between these diseases and circumstances tending to poison the atmosphere with carbonic dioxide, carburetted hydrogen, and other noxious gases.

The next topic discussed was the great alteration in medical opinion that has recently come about in *antipyretic medication*. It was only in later times that the medical profession had become aware of the important *rôle* played by fever in the protraction of disease, and attention had been turned to the reduction of the temperature in cases in which it was not regarded as primary. It had been found that patients recovered with far less loss of strength under the antipyretic than under merely expectant treatment. Even in consumption, in which the fever was considered the incidental result of rapid tissue waste, antipyretic measures had been demonstrated not only to conduce to the ease and comfort of the patient, but to prolong life, and, when not too far advanced, to promote recovery. But there was one disease—usually pronounced unconquerable by antipyretic measures, and the full run of which was generally considered inevitable—in the treatment of which remedies to reduce temperature had been attended with the happiest results. He alluded to acute rheumatic fever, and to the newly-devised treatment with salicylic acid and its derivatives, particularly the sodic salicylate and salicin, which had of late

proved of such efficacy in cutting short the attacks of that painful disease. Quinine and other antipyretics were also to be considered in their proper places in relation to inflammatory symptoms. The great value of antipyretics (as distinguished from apyretics) in the treatment of all diseases attended with pyrexia being established, every addition to this class of medicines was valuable, since, with a large number to select from, they were able to make a nicer adaptation to suit the varying conditions of the case. Frequent accidents in the use of injections of solutions of carbolic acid into the peritoneal, thoracic, and other cavities, in which a notable fall of temperature, accompanied by symptoms of collapse, was observed, had led to the conclusion that this medicine might be used in doses that were yet safe, in febrile diseases, to secure defervescence. Accordingly, they would find in the *Lancet* a report of several cases of typhoid fever treated with this drug, in which a marked fall of temperature was noticed, and the duration of the disease materially shortened. The dose used in these trials was six drops of the glycerite of carbolic acid every three or four hours. As this dose was smaller than that of any of the other antipyretics, and as it was less disagreeable to the taste than quinine, and less nauseous than salicylic acid and its compounds, the remedy was likely to prove a very valuable one in the pyretical condition.

From this subject, Dr. Lynch passed to new remedies and additions to the materia medica, commencing with the experimental researches of Dr. F. Penzoldt, of Erlangen, conducted both upon men and upon the lower animals, respecting the bark of the *Asphidosperma quebracho*, obtained from Brazil. The form of preparation was aqueous solution of an alcoholic extract, 10 parts of the bark being percolated with 100 parts of alcohol for several days, and the liquid filtered, evaporated, dissolved in water, again evaporated to dryness, and the residue dissolved in 20 parts of water. A teaspoonful of this solution was given three times a day to persons suffering from both pulmonary and cardiac dyspnoea, with very marked relief to that symptom. Afterward, Berthold, of Dresden, and Picot, of Carlsruhe, used the solution in various diseases, such as asthma, emphysema, phthisis and pneumonia, in which embarrassed respiration was a prominent symptom, and always with great benefit in relieving the urgency of that symptom.

The report was referred to the Committee on Publications. Dr. W. T. Briggs, of Nashville, Tenn., then delivered his

address as chairman of the *Section on Surgery and Anatomy*, After referring to the surgical uses of aconite and its preparations, and passing allusions to some of the other advances in surgery, especially litholapaxy, he then discussed the subject of *preventive trephining*. Injuries to the head, he said, had engaged the attention of the best intellects in all ages. There had been but little advance in this department of surgery, while others had been making rapid strides toward perfection; and the rational treatment of cerebral diseases, whether traumatic or consisting of progressive tissue alterations, probably remained to be developed. The trephine, against which medical sentiment had been so decided of late years in authoritative quarters, was an instrumental operation as ancient as Hippocrates, so that its history was one of curious interest. Boring of the skull was not considered a perilous operation in the primitive ages of European civilization. It was practised in remote ages as a religious ceremonial, and even by strolling mountebanks as a remedial measure for obstinate pains in the head, and the day had come, he opined, when the budding reaction in favor of the operation should be encouraged, or, at least, calmly considered by surgeons. Dr. Briggs referred briefly to the favorable results which had followed trephining in cases of epilepsy. One point which tended to establish the operation upon a logical basis was supplied by the masterly researches of Fritsch and Hitzig in Germany, and Prof. Ferrier in England, which had contributed so largely to our information respecting the function of the nervous centres. The view of cerebral physiology which their labors went to prove was that usually described as cerebral localization—showing that particular groups of muscles are co-ordinated and set in motion by nervous centres particularly appropriated by them, and thus enabling the physician, in view of paralysis or disturbance of any given group of muscles, to infer, with a tolerable degree of certainty, that an identifiable circumscribed portion of the brain was involved. If this view of the function of the brain should ever be fully demonstrated, and the centres appropriate to each group of muscles, and each form of sensation ascertained and mapped out, then the operation of trephining at the proper point to relieve pressure and restore the embarrassed function of the nervous centre indicated by the symptoms, would become the only operation to be entertained. As against the notion that trephining is attended with extreme peril, Dr. Briggs cited twenty-five operations attended with only one death in the practice of a sin-

gle surgeon, and forty-four with eleven deaths in that of another. He drew the inference that preventive trephining was even justifiable. His own experience and observation alike concurred in showing that, if it was decided to operate at all, the sooner it was done the better for the patient's prospect of survival. So little was the peril regarded in the mines of Cornwall, that a practitioner living in that district reported that he was often called upon to trephine at the rate of three or four operations per week; and there was evidence to show that the primitive cave-dwellers of Europe were in the habit of boring the skull for brain troubles. Dr. Briggs cited Bell Velpeau, and the remarkable case of the Count of Nassau, who was trephined twenty-seven times. Statistics showed that of 106 cases, two-thirds were saved by *preventive* trephining. Of the forty-two cases whom he had trephined, thirty-eight recovered. The deductions from such facts were: 1. Extensive comminuted, depressed fractures of the skull were almost invariably fatal without operative measures. 2. Curative operations were but little better than the expectant plan of treatment. 3. Preventive trephining offered the best chances for a successful operation. Dr. Briggs then discussed the question of the treatment of punctured and simple fractures of the skull, fractures of the external and of the internal table, and stated as the essentials to success: 1, full antiseptic precautions; 2, the use of the conical trephine; 3, entire *removal* of all loose fragments of bone; 4, special attention for the purpose of securing perfect drainage, the open-wound treatment being his favorite method.

Referred to the Committee on Publications.

The following resolutions relating to prize essays were adopted:

(1) Four annual prizes of \$250 each shall be awarded at the close of the second year after announcement for strictly original contributions.

(2) Chairmen of the Sections on Practice of Medicine, etc., Surgery and Anatomy, Obstetrics, etc., and State Medicine, must annually appoint a competent committee of three members who shall select and publicly announce for competitive investigation and report a subject belonging to one or other of the branches of medicine included in the title of the section.

(3) These chairmen shall also annually appoint a Committee of Award, consisting of three experts, and if any one of the essays presented to this Committee of Award shall be

found worthy, the committee is to recommend the same to the Association.

(4) All essays shall be in the hands of the chairman of the respective Committees of Award by January 1st, preceding the meeting of the Association at which reports are to be made.

(5) All prize essays are the property of the Association.

(6) The names of the authors of the competing essays shall be kept secret from the committees by such means as the latter may provide.

(7) Membership in either of the two committees shall not debar from membership in the other; nor shall membership in the Committee of Selection exclude a member from the privilege of offering a competitive essay.

Adjourned.

THIRD DAY—*June 3.*—The report of the Committee on Nominations was presented by the chairman, Dr. W. O. Baldwin, of Montgomery, Ala., as follows:

President—Dr. John T. Hodgen, of St. Louis, Mo.

Vice-Presidents—Drs. W. H. Anderson, of Mobile, Ala.; Levi G. Hill, of New Hampshire; Henry T. Holton, of Vermont; H. Carpenter, of Oregon.

Permanent Secretary—Dr. W. B. Atkinson, of Philadelphia, Pa.

Treasurer—Dr. R. Duglison, of Philadelphia, Pa.

Librarian—Dr. William Lee, Washington, D. C.

Chairman of the Section on Practice of Medicine, Materia Medica and Physiology—Dr. Charles Denison, of Colorado.

Secretary—Dr. T. A. Ashby, of Maryland.

Chairman of the Section on Surgery and Anatomy—Dr. H. McGuire, of Richmond, Va. *Secretary*—Dr. D. A. Eve, of Tennessee.

Chairman of the Section on Obstetrics and Diseases of Women—Dr. James R. Chadwick, of Boston, Mass. *Secretary*—Dr. J. Taber Johnson, of Washington, D. C.

Chairman of the Section on Medical Jurisprudence and State Medicine—Dr. J. T. Reeve, of Wisconsin. *Secretary*—Dr. R. G. Young, of Arkansas.

Chairman of the Section on Ophthalmology, Otology and Laryngology—Dr. D. S. Reynolds, of Kentucky. *Secretary*—Dr. S. M. Burnett, of Washington, D. C.

Members of the Judicial Council, to fill vacancies—Drs. J. K. Bartlett, of Wisconsin; F. Staples, of Minnesota; D. R. Wallace, of Texas; J. S. Billings, of U. S. Army; J. H. Warren, Massachusetts, and A. T. Woodward, Vermont.

The next meeting of the Association is to be held in the city of Richmond, Va., on the *first Tuesday* in May, 1881.

Chairman of Committee of Arrangements—Dr. F. D. Cunningham, of Richmond, Va.

The Committee further recommended that the Committee on Necrology and the membership of the Section on Medical Jurisprudence, State Medicine and Public Hygiene remain as now constituted. The report was adopted unanimously.

Dr. Denison offered his resignation, which was accepted, and referred to the Committee on Nominations.

Dr. Bronson, of Massachusetts, offered the following preamble and resolution, which was adopted:

Whereas, The published proceedings of various sections of the Association does not receive the practical expression desired, and does not represent the labors of its members; and *whereas*, the members of the Association have long felt that the present mode of introducing the Transactions to the profession has been unsatisfactory to all concerned in the advancement of medical science; therefore,

Be it Resolved, That a committee of five be appointed by the chair to report at the next session regarding the practicability of formulating all the proceedings in journalistic form, as recommended by the President in his Annual Address. Carried.

The Report on Sanitaria, presented by Dr. H. I. Bowditch, of Massachusetts, was read by title, and referred to the Section on Public Hygiene.

Dr. J. S. Billings, of Washington, D. C., reported on *The Catalogue of the National Library*, that Congress had made provisions for the publication of the volumes, of which the first would probably be published in July, 1880, and the second in July, 1881.

The following amendments to the Constitution, proposed by Dr. John H. Rauch, were adopted:

Article II, second paragraph, after "Army and Navy," insert "and the Marine Hospital Service of the United States."

Article II, fourth paragraph, at the end insert "the Marine Hospital Service of the United States shall be entitled to one delegate."

Section on Diseases of Children.—Dr. S. C. Busey, of Washington, offered an amendment to the By-Laws, making provision for a new section to be designated as Section VI, Diseases of Children. Adopted, and referred to the Committee on Nominations.

The report of the Metric Executive Committee being next

in order, it was read by Dr. Atkinson, who moved its adoption. Discussion followed, which was participated in by Drs. Brodie and Fairbanks, of Michigan, and Bronson of Massachusetts, who opposed it, and Cole, of California, Hunt, of New Jersey, Antisell, of D. C., and Lyons, of Connecticut, in favor of the report, which was adopted by the Association.

The following were the propositions recommended by the Committee and adopted by the Association :

First. It recommends the teaching and practice of the metric system in medical colleges, clinics, dispensaries, etc.

Second. It charges its Executive Metric Committee with the duty to report annually on the above institutions which teach, and those which do not teach the metric system.

Third. It authorizes said committee to enter into communication with the Metric Committee of the British Medical Association, in order to concert such plans as may render the use of the metric system simultaneous and uniform in both countries.

Dr. Theophilus Parvin, Chairman; Dr. Edouard Seguin, Secretary; Drs. Edward Wigglesworth and F. R. Weist, Executive Metric Committee.

Dr. W. M. Beach, of Ohio, offered a resolution making provisions for the appointment of a committee of five, whose duty it should be to endeavor to secure for the medical staff of the army and navy a social position co-equal with that for like grades in any department of the service. Adopted.

Report from the Judicial Council.—Whereas, A protest without signature, against the registration of the delegates from the Medical Staff of the U. S. Navy, and unaccompanied by charges, had been placed in the hands of the Judicial Council, therefore,

Be it Resolved, That the protest against the registration of delegates from the Medical Department of the U. S. Navy is not sustained, and therefore there was no cause for action thereon. Adopted.

Resolved, That the Hannibal Medical Society of Missouri is not entitled to representation in the American Medical Association, because it is not in affiliation with its own State Medical Society. The protest, therefore, was sustained.

Dr. James F. Hibbard, of Richmond, Ind., Chairman of the *Section on Medical Jurisprudence, State Medicine and Public Hygiene*, then delivered an address, of which the following is an abstract: After some general remarks, in the course of which the interesting fact was brought forward that *in all*

previous time, with reference to public hygiene, there had been published 459 documents of all kinds as against 1,525 published during the last year, Dr. Hibbard passed to the consideration of certain questions under the head of *medical jurisprudence*. Passing the literature of the subject, which was meagre, the chairman spoke of the request made by Congress of the Academy of Sciences to report upon some better way of legally taking human life than by hanging. It seemed unaccountable, while life was destroyed so easily, so surely, and so promptly by the taking of prussic acid or by the aid of a powerful current of electricity, that the process of hanging should have continued so long without effective remonstrance. In connection with this topic, allusion was made to the step of progress made recently by Judge Heller, of Indianapolis, in fixing *Wednesday* instead of Friday as the day upon which the law should be executed by hanging, and thereby breaking into the almost universal custom that had sustained and nourished prejudice and superstition which had been specially unhealthy in its influence upon all classes of people.

The second part of the address was devoted to certain questions connected with *psychology*, which in its general sense had had a very active state imposed upon it by recent investigations concerning the functions of the brain. Of psychologists there were two classes; first, theological, and second, scientific. The former were earnest, active, positive; and the latter, to which physicians mostly belonged, had become thoroughly aroused to the necessity of investigations to determine whether certain parts of the brain give rise to certain attributes of mind, or whether the brain as a whole is the organ of the mind as a whole.

There was no broad dividing line between the theological and the scientific investigator, yet their courses were entirely distinct from each other. There was not necessarily, however, any conflict between them. For a long time the brain had been recognized as the organ of the mind; but to the investigations of Hitzig and Fritsch was the new impulse due which had led many observers subsequently to pursue study in the same direction.

In connection with this topic, reference was made to the increase in the number of the insane, and that led to the consideration of the questions, How far should the State assume the guardianship and maintenance of the insane? and What was the best method of proceeding?

These questions were fully discussed, with an expression

of opinion that special training was not necessary to the proper treatment of the insane, any more than for the application of therapeutics in the treatment of any other brain disease or morbid condition of the system generally.

The speaker then directed attention to a social aspect of psychology, and spoke of it from the point of view of hereditary transmission of disease, and, as belonging thereto, the transmission of the tendency to intemperance and the commission of certain crimes. Would it not be discovered presently that all such irregularities—crimes if you choose—are due to imperfect nervous systems, and may not the tendency to such be transmitted? If due to a disordered brain, may not that react and lead to degeneration and diseases of other organs? Under the head of *State Medicine*, Dr. Hibbard referred to the lack of uniform and well-considered plans with municipal and local boards of health for operation, and then entered somewhat into detail with reference to the working of the National Board of Health, and its ability to meet the demands of the hour without in any way interfering with local or State organizations. Some of the criticisms upon the work performed by the National Board were then considered, and special reference made to the fact that sanitary science was yet in its infancy; that it was only a few decades since offerings had been made to Hygeia. Its influence was felt not only in this country, but had already become international.

The President announced the following committees: To carry out Dr. Bronson's resolution offered in the early part of the session: Drs. W. W. Dawson, Ohio; J. R. Bronson, Mass.; W. H. Pancoast, Pa.; N. C. Husted, N. Y.; J. S. Green, N. J. On the President's Address, Drs. Chaillé, La.; S. D. Gross, Pa.; J. S. Weatherley, Ala.; J. R. Bronson, Mass.; and W. R. Gillette, N. Y. To report in 1881.

Dr. J. M. Toner, of Washington, D. C., then read the Report of the Committee on Neerology, which was referred to the Committee on Publication.

Delegates to the Canada Medical Association, Drs. C. N. Brush, Buffalo, N. Y.; James R. Leaming, New York, N. Y.; D. H. Goodwillie, New York, N. Y.; Wm. Brodie, Detroit, Mich.; W. B. Ulrich, Pittsburg, Pa.

Delegates to European Medical Societies, Drs. R. Beverly Cole, Cal.; Benj. Lee, Pa.; M. A. Pallen, N. Y.; and L. D. Bulkley, N. Y.

The report of the Librarian stated that the library contained 1,302 distinct titles, constituting 3,258 volumes. The Libra-

rian asked for \$200 with which to carry on the work of the library. The report was accepted, ordered entered upon the minutes, and an appropriation for the amount of money named granted.

Adjourned.

FOURTH DAY—*June 4.*—The following were appointed as Committee on Dr. Beach's resolution concerning the social position of the members of the medical staff of the United States Navy: Drs. Wm. M. Beach, London, Ohio; C. Goodbroke, Clinton, Ill.; H. McGuire, Richmond, Va.; William S. Briggs, Nashville, Tenn.; D. W. Yandell, Louisville, Ky.

A communication from Dr. Frederick Horner, Jr., U. S. Navy, containing a resolution adopted by the Medical Society of Virginia, instructing its delegates to the American Medical Association to ask that body to take the necessary steps for establishing a mutual medical aid association, was received favorably, and referred.

A communication from the Philadelphia County Medical Society, concerning the abuse of medical charities, was received and referred to a special committee, appointed by the chair, consisting of Drs. B. Lee, H. G. Piffard, S. W. Gross, and J. W. Green.

A resolution was offered by Dr. A. L. Carroll, of the Richmond County Medical Society of New York. *Resolved*, That societies which admit irregular practitioners to membership be debarred from representation in the American Medical Association. Referred to the Judicial Council.

The Treasurer's report showed receipt of \$5,025; balance in the treasury \$579.59. The report was received and referred to the Committee on Publication.

Dr. Pratt, of Michigan, offered a resolution, instructing the Committee of Arrangements to publish one programme of the work to be done in general session at the next annual meeting during the whole four days, instead of a daily programme, which was adopted.

Dr. Pratt also offered the following resolution, which was adopted, That the Committee of Arrangements be instructed to so place the proposed amendment to the Code of Medical Ethics upon the programme that it shall be made the special order at 10.30 A. M. of the second day's general session, and that it shall remain as a special order until disposed of.

The Committee on Nominations completed its report by offering the following:

Assistant Secretary—Dr. J. G. Cabell, of Virginia.

Committee of Arrangements—Drs. Cunningham, McGuire,

and Cullen, of Richmond, Va., with power to select others to make a committee of *seven*.

Committee of Publication—The same as last year. Drs. W. B. Atkinson, T. M. Drysdale, William Lee, R. J. Dunglison, Albert Fricke, S. D. Gross, and Caspar Wistar, all of Philadelphia.

Chairman of the Section on Practice of Medicine—Dr. William Pepper, of Philadelphia.

Chairman of the Section on Diseases of Children—Dr. A. Jacobi, of New York; *Secretary*—Dr. W. H. Bradford, of Boston.

The committee also recommended that the following resolutions, passed by the Association last year at Atlanta, be recognized as remaining in force until further orders by the Association:

“That the Committee of Publication be instructed to advertise for proposals to publish the Transactions of this Association in six of the largest cities of the Union, and that the contract be awarded to the lowest and best responsible bidder.

“That the Treasurer be instructed to deposit the funds of the American Medical Association, monthly, as Treasurer, in the name of the Association, in the Farmers’ and Mechanics’ Bank, of Philadelphia.”

The report was read and adopted.

Dr. H. G. Piffard, of New York, offered the following resolution, which was referred to the Judicial Council: That the Richmond County Medical Society of New York, which has members who have been irregular practitioners of medicine, be debarred from representation in the American Medical Association.

Dr. Pallen moved a reconsideration of the vote by which the resolution relating to the printing of the Transactions, reported by the Committee on Transactions, was adopted. Carried.

Dr. Pallen then moved that the publication of the Transactions for this year be assigned to the Collins’ Printing-house, as last year, without advertising. Carried.

On motion by Dr. Marcy, of Massachusetts, an honorarium of \$1,000 was granted the permanent Secretary.

Dr. Hibbard, chairman of the Section on Medical Jurisprudence and State Medicine, offered the following resolutions as sent up from the Section:

- (1) Endorsing the National Board of Health.
- (2) That the Association recommend medical schools to

establish a Chair of State Medicine as part of the regular curriculum.

(3) That the name of the Section hereafter shall be "Section on State Medicine."

(4) That the Committee on Prize Essays shall be Drs. S. E. Chaillé, of Louisiana; J. L. Cabell, of Virginia; and A. N. Bell, of New York.

The resolutions were all adopted.

Dr. Bronson, of Massachusetts, reported progress from the committee appointed to report upon the feasibility of publishing the proceedings of the Sections in journalistic form. The report was accepted, and the committee continued, to co-operate with the Committee on the President's Address, appointed to report at the next annual meeting.

The President then introduced Dr. John T. Hodgen, of St. Louis, the President-elect, who responded appropriately to the call of the Association.

A vote of thanks was tendered to Dr. Sayre for the ability and courtesy with which he had discharged the duties of President. The motion was unanimously passed by a rising vote.

Dr. Sayre responded in words of feeling and thanks for the uniform kindness which had been extended to him, and especially for the manifestations of sympathy and support which he had received from members of the medical profession all over the world, in the hours of his great bereavement and prostration caused by the sudden death of his eldest son.

The Association was then declared adjourned, to meet in the city of Richmond, Va., on the first Tuesday in May, 1881.

PROCEEDINGS OF SECTIONS.

SECTION ON PRACTICE OF MEDICINE.—*First Day.*—Dr. J. S. Lynch, Chairman; Dr. W. C. Glasgow, Secretary.

Classification of Remedies.—Dr. Wm. H. Thompson, of New York, read a paper on this subject. He advocated taking, as the character of the drug, on the one hand, the effect it produces in a certain time in one large dose; and, on the other hand, the effect produced by a gradual administration. Illustrations of the one class are emetics and opium; of the other, are mercury, iron and arsenic. The difference between these two classes is marked. Thus, the *immediate remedies* produce symptoms at once; the *remote* do not act so, or, if they do, it may be considered that they are not acting remedially. Another difference is that the immediate remedies produce their symptoms in the healthy as much as

in the sick; the remote remedies do not act so. Iron does not enrich the blood of the healthy. The first class is given to remove symptoms, the second class, to cure disease. Opium, on the one hand, and iodide of potassium on the other, illustrate this.

As a rule, when the first class does not produce symptoms, we have not given enough. When the second class produces symptoms, we have given too much. The first class, or symptom-medicines, again, affect functions; the second class, or disease-medicines, affect organs. This difference is shown in the effects of iron and digitalis. The latter is a neurotic, and affects the function of the heart. Iron, however, affects the tissue of the organ, and may prevent its fatty degeneration.

In the treatment of acute affections, fevers, etc., the disease-medicines are almost always useless; and in the treatment of chronic diseases, the symptom-medicines are generally useless. This is because acute diseases, as a rule, are due to accidental functional derangement, while chronic diseases are due to organic changes. Here it is that the physician cures, if anywhere; and here he will gain his greatest triumphs.

The classification proposed, therefore, is as follows:

ORDER I—DISEASE-MEDICINES.—*Class I.* Restoratives, which are natural to the system.

Class II.—Alteratives, which are unnatural or foreign to the body. These medicines cease to act remedially when they begin to produce symptoms. It is well to give the restoratives with the alteratives, as it will put off or prevent the development of symptoms.

ORDER II—SYMPTOM-MEDICINES.—*Class I.* Neurotics, which affect nerve-functions. (a) Those which are both stimulants and sedatives, as opium. (b) Stimulants, as ammonia. (c) Sedatives, as aconite.

Class II.—Glandular medicines.

Class III.—Astringents.

The advantages of this classification are that it helps the student in studying the action of remedies, and the practitioner in administering them intelligently.

Dr. Roberts Bartholow, of Philadelphia, said that certain fundamental objections occurred to him, as to the classification into disease- and symptom-medicines. Opium, in small doses, had an entirely different effect from it when given in large doses, and any classification based upon dosage could not be established. Again, there were drugs which, though

symptom-medicines, did sometimes cure disease; thus, digitalis will cure dilatation of the heart. Again, certain symptom-medicines will produce structural changes; thus, opium, if given continually, will produce anæmia. He was of opinion that no correct classification of remedies could be made at present, as our knowledge is insufficient.

Dr. Thompson thought Dr. Bartholow misunderstood his position. Thus, in regard to the classification by dosage, his point was that one dose of symptom-medicines, whether great or small, must act at once. The symptoms may vary, but the time is immediate. In regard to symptom-medicines not curing disease, he had never seen digitalis cure dilatation of the heart. He had used the word alterative with reluctance, and did not use it at all with his students; but it was a convenient and familiar term.

Dr. Putnam-Jacobi called attention to the fact that the ultimate action of all medicines was necessarily molecular. Nothnagel endorsed the conclusions based on our experiments, that alkaloids acted by diminishing the oxidations in nerve-tissue—that is, affected the first step in the process of elementary respiration, whereby the atom of carbon was liberated from its albuminous molecule and given up to the oxygen of the blood. Opium, for instance, diminishes the activity of the intra-molecular oscillation of atoms; mercury, on the contrary, accelerates this intra-molecular oscillation, and favors the breaking up of the albuminous molecule saturated with a specific poison.

Again, although small doses of morphine produced only perceptible effects on the molecules of the nerve-tissues, poisonous doses were seen to extend these very same effects to *all* tissues. Thus, in opium coma, the elementary respiration is *everywhere arrested*—oxidation of all tissues deficient; hence the secondary paralysis of capillaries, which is a prominent feature of opium-poisoning. In such a conception of molecular action we are able to have a comprehensive view of the entire action of the drug; also a proof that an influence called “functional,” when confined to nerve-centres, becomes structural when with increasing doses it extends beyond them.

Dr. Thomson said that the anæmia produced, as stated by Dr. Bartholow, was not due to the direct effect of the drug, but to the anorexia which the drug produced. So of other remedies of this class—they might produce structural changes, but not as a direct result of their use.

With reference to Dr. Jacobi's remarks that, even in func-

tional remedies, there are molecular and therefore really structural changes, he admitted this; but we are so very far away from ever knowing what these changes are, that they need not be taken into account. He did not believe in the value of the German theories in regard to the precipitation of albumen by various drugs.

The paper was ordered to be printed.

Case of Occlusion of One or More of the Cerebral Sinuses.—

Dr. M. O'Hara, of Philadelphia, related a case of a girl whom he was called to see some months before. The patient suffered from intense headache, œdema of the face, slight strabismus, and ecchymosis of the conjunctiva. There was slight anæsthesia of the left side and hyperæsthesia of the right; slight dullness of hearing on the left side. There was evidence of some paralysis on the left side of the body. Her mind was clear. She was treated at first with mercury and iodide of potash; purgatives also were given with good effect. She gradually improved, and in three weeks was quite well. The chief points in her symptoms were the œdema, neuralgic pains, conjunctival ecchymosis, ocular protrusion, and paralysis of the right sixth nerve. It seemed probable that there was a thrombosis of the right cavernous sinus which extended through the circular sinus to the left cavernous sinus. This thrombosis was not brought on by any trauma, erysipelas, or inflammation of the middle ear. It had been asserted that many cases of ocular protrusion, supposed to be due to aneurism, are really due to venous obstruction. The statement was also quoted from Dr. Harland that orbital aneurism is very rare, if it ever occurs. Dr. O'Hara was inclined to think that the cause of the trouble was a specific one. The patient recovered rapidly under large doses of biniodide of mercury.

Second Day.—**Sphygmograms, with Notes of Autopsies.**—Dr. H. R. Hopkins, of Buffalo, N. Y., said the sphygmograph had been twenty years before the public, but had not yet received any general endorsement. Even experts could not interpret its readings accurately. There are, however, qualities in the pulse which are not perceptible to the touch, and in detecting these the sphygmograph can accomplish very much when more perfectly made and more carefully studied. He then showed some tracings which he had made of cases of locomotor ataxia, cardiac dropsy, endo-arteritis, Bright's disease, and of normal pulses. The pressure at which the tracings were taken was not given. He believed the tracings indicated characteristic peculiarities in the circulatory sys-

tem of each disease. The tracings were taken by a modification of Pond's sphygmograph. A peculiar trace might be found for many chronic diseases. The rule was given to mistrust the accuracy of the instrument when it failed to give a sharp angle to the tidal wave.

Referred to the Committee on Publication.

Chrysophanic Acid in the Treatment of Skin Diseases.—

Dr. Robert W. Taylor, of New York, read a paper on this subject. Chrysophanic acid is derived from the Goa powder, and it is as much a cure for some skin diseases as quinine is for malaria. The strength of the ointment should be about gr. x to 3j of simple ointment—rarely increased to 5j to 5j. The acid is useful in chronic or subacute skin affections, where there is a superficial infiltration, and in certain scaly diseases. It will not do when the infiltration is deep. Its dangers are, its staining and its irritant properties. The acid has no anti-pruritic properties. It would be good in indurated acne, but for its staining the skin; caution should be used in applying the ointment to the face. In eczema it is useful, but should be combined with oil of cade or some other tarry oil. Two cases of obstinate sycosis had been cured by the acid. Ringworm of the body can also be cured by it. Lichen, papular and scaling syphilides are also relieved by it. In psoriasis, however, the acid has achieved its greatest results.

Referred to the Committee on Publication.

Further Contribution to the Local Treatment of Pulmonary Cavities.—Dr. Wm. Pepper, of Philadelphia, read a paper on this subject. The chief indications for the treatment of pulmonary cavities are, cleansing, disinfection, and modifying the walls of the cavity. The use of inhalations, sprays, and direct injections has been employed, but, as regards the first two measures, without much success. One form of inhalation by which some good may be accomplished, is by the continuous inhalation of medicated vapor. An instrument for doing this was shown. It consisted of a kind of mask, attached to which is a small box containing sponge on which the medicated fluid is poured. This is tied over the mouth. The best medicines are carbolic acid, iodine, thymol, etc. With an instrument of this kind the bad breath due to putrid cavities, or bronchiectasis, can be corrected, and probably good can be done in cases of chronic bronchitis.

It was not likely, however, that much could be done in pulmonary cavities by continual inhalation. He therefore called attention to the value of direct injections into the lung

cavities. A number of cases were reported showing the value of this procedure. Lugol's solution, in the proportion of from ℥x, ℥xv, or ʒj to ʒj of water, was used. In one case the injections were given forty-eight times in fourteen months. The patient improved, and when he died some time afterward, from Bright's disease, the cavity was found to have been obliterated. Seventeen other cases were referred to, in which similar treatment was pursued, 291 injections having been made. Autopsies on some of the cases showed that contraction of the cavities was induced by the injections. Injections into caseous consolidation of the lung, in very bad cases, gave negative results.

The syringe used was like an ordinary hypodermic syringe, but had a larger barrel and longer needle. Lugol's solution and carbolic acid were the only agents suggested. The skin should be first chilled with ice; the injections should be mild at first. There is no danger in such injections, cough and pain being the only symptoms excited.

Dr. Bennett, of Ohio, said that there seemed to be a failure in this new form of treatment to secure any general benefit. The healing of cavities was a thing that often took place spontaneously. The cases given by Dr. Pepper only showed that the method was harmless.

Dr. Pepper said that the *post-mortem* cicatrices in lungs did not often indicate *ante-mortem* cavities, but rather areas of exudation. In 4,000 cases where there were pulmonary cavities, only 81 seemed to be contracting. Probably not five of these ever finally disappeared. Very few cavities ever healed up, and any method which would promote this healing would be of the greatest value. In the cases related, all other medication was suspended. The patients themselves almost always had great faith in the treatment. In regard to recommending the measure for general adoption, Dr. Pepper felt some hesitation, for he did not think that its value was yet entirely established.

Dr. Whitney said that as the indication for the use of injections was limited, he did not think its practical value would be very great.

Dr. E. Cutter, of Boston, referred to some cases in which he had plunged needles into the lung and had seen no harm follow.

Dr. Russell, of Massachusetts, referred to twenty-four cases of gunshot wounds of the chest; twelve of these recovered so far that they could go home. He referred to this as illustrating the capability of the lung standing severe injuries.

Dr. Wilson, of Ohio, spoke of the fact that phthisis is a constitutional disease, and must be treated constitutionally. We may cure one cavity, but another will appear. The disease cannot be cured by any local treatment.

Treatment of Scrofulous Diseases of the Skin.—Dr. John V. Shoemaker, of Philadelphia, read an abstract of a paper on this subject. He had used all the drugs usually employed in serofulous diseases of the skin, such as cod-liver oil, iron, iodide of potash, etc., but had met with such poor success that he was led to try chlorate of potash. This had given him the greatest possible satisfaction, and he believed that it often acted almost specifically in the diseases in question. In young children suffering from enlarged and suppurating cervical glands, the best results will be obtained by gr. ij to gr. iij, four times a day. This drug will increase the appetite, increase the weight, and improve the complexion. Such use of chlorate of potash in phthisis and serofula was described by Dr. Harken in 1868. Dr. Shoemaker endorsed Dr. Harken's views, and believed that it was the only effective remedy in many cases of serofuloderma. The experience of Dr. Nicholson, who believes that the alkalies should take the place of iron in anæmia, is in consonance with the views of the speaker. Dr. Shoemaker believed that physicians should never recommend marriage among the serofulous.

Dr. Ulrich, of Chester, Pa., said Dr. Shoemaker's experience was entirely different from his own. He had great faith in the drug in diphtheria and throat troubles; in serofulous diseases, however, he had had no good results whatever. He had used it a great deal, and he thought he might just as well have poured it down a rat-hole as down his patient's throat.

Dr. R. W. Taylor, of New York, asked what was meant by serofulous diseases of the skin. He had been accustomed to look upon lupus, for instance, as a serofulous disease, and he should be astounded to learn that chlorate of potash cured it. Dr. Taylor had used the chlorate of potash in certain diseases of the skin due to suboxidation, and with success.

Dr. Shoemaker said that he used the remedy in persons whose lymphatic glands were swollen or broken down, and the skin in a diseased condition over it.

Restorative Remedies.—Dr. J. R. Uhler, of Baltimore, read a paper on this subject. He described a very simple method of determining the amount of nitrogen (and urea) in urine. It consists in taking two bottles, one of which just fits into the other. The smaller bottle is attached by a wire to the

cork of the larger one. Into the small bottle is placed urine; in the larger a mixture of liquor sodæ chlorinat. and common salt. The two bottles, one within the other, are first carefully weighed; they are then shaken and their contents mixed together. A decomposition follows, which results in the evolution of nitrogen. This gas is allowed to pass off, and the bottles with their contents are again weighed. The difference between the first weight and the second shows the weight of the nitrogen, from which may be calculated the weight of the urea. Dr. Uhler then referred to the recent experiments of Dr. Roberts on the digestive ferments, in which he had stated that milk and oysters were the only two foods that should not be eaten cooked. The oyster digested itself when taken raw. He showed a specimen of cod-liver oil, mixed with cheese, which quite effectually disguised its taste. The pungency of the cheese also aided the digestion of the oil. Specimens of cod-liver oil, mixed with bread, were also shown.

Dr. Uhler had proved by several experiments that malt changed starch into glucose.

Preparations of pepsin had been tested by the speaker to see how great their value really is. Microscopic examinations showed that the various specimens in the market differed greatly in value. The fresh varieties are the best by far, and many of the others are unreliable. He had devised a new process by which he hoped the pepsin could be kept active in powder form. He covered the fresh moist stomach over with gypsum. When this hardened, he pulled it off and ground up the saturated plaster. This, he had found, was very active, and kept very well.

Third Day.—**Electrical Treatment of Exophthalmic Goitre.**—

Dr. A. D. Rockwell, of New York, read a paper on this subject. In regard to the current to be used in exophthalmic goitre, every physiological consideration and all experience point to galvanism as prominently indicated; and yet the faradic current is not altogether useless. The application, however, must not be local, but *general*, after the method of general faradization; and in a certain proportion of cases, where there is anæmia, with marked nervous irritability, benefit will certainly follow. Dr. Rockwell had obtained good results by placing the cathode over the cilio-spinal centre, and the anode in the auriculo-maxillary fossa, gradually drawing the anode (after a few moments of stable treatment) along the inner border of the sterno-cleido muscle to its lower extremity. The second step in this process consists in remov-

ing the anode to the position occupied by the cathode, and using for a minute or so longer a greatly increased strength of current. In one case, failing after considerable effort to accomplish more than a very moderate degree of amelioration, the speaker made use of currents that were rapidly increased and diminished every few seconds by means of a rheostat, and with very great benefit. Subsequently to this, he came across a case, published originally by Dr. Ancona, in the *Giornale Veneto di Scienze Mediche*, where an obstinate and severe example of Graves' disease had been cured by distinct interruptions of the current, the electrodes being placed on either side, just below the angle of the lower jaw. The cure was accomplished only after the administration of 100 applications. In addition to the four cases that he had previously published, Dr. Rockwell gave in detail the history of five additional cases. Of a total of nine cases, four completely recovered, one approximately recovered, two were much benefited, while in two cases no form of treatment proved of essential service. In another case the pulse only was improved. In a fifth case there was an intermittency in the pulse, which ceased on the application of the galvanic current.

Dr. Chas. K. Mills, of Philadelphia, did not see how any electrical applications could directly affect the sympathetic. He thought it probable that the sympathetic was affected reflexly, if at all. Dr. Rockwell spoke of applying the current to the solar plexus. He hardly thought it possible to do this. He had used the galvanic current in exophthalmic goitre, and it had produced good results, but he thought these were probably caused by the general tonic effect of the electricity, and perhaps also by its reflex influence.

Dr. J. J. Caldwell, of Baltimore, thinks this a disease of the vaso-motor centres, and gave an illustration to prove the same—especially through the demonstration of Kidder's faradic electrical apparatus, preferably, because of the full and reliable currents with steady tension.

Dr. Geo. M. Beard, of New York, said it was known positively that we can affect the cervical sympathetic by the electrical current. But the effect is very small, and it is a question how much the therapeutical results caused by electrical applications are due to this. The results produced by electricity are not caused by electrolysis or by any chemical decomposition.

Dr. Mills said that it is very indefinite to speak of diseases or influences on the sympathetic system. It might possibly

be just as well to place the electrodes in other parts of the body as on the neck, for the neck is a somewhat dangerous place to apply electricity.

Dr. Rockwell said, in reply to a question by Dr. Harrison, of Ontario, that he generally placed the anode in the fossa behind the ear, and the cathode on the back of the neck. This position he at intervals reversed, putting the cathode where the anode was, and the anode on the epigastrium.

New Method of Treating Chronic Pulmonary Complaints by Artificial Inflation of the Lungs.—Dr. J. Solis-Cohen showed a small rubber instrument like the bulb of a Davidson syringe with a short rubber tube attached. The end of the tube is placed in one nostril, and air is then forcibly injected. This enables the patient to get rid of accumulations of mucus and pus, relieves cough, and often secures sleep, just as an opiate.

Sulphur and its Compounds in Skin Diseases.—Dr. L. Duncan Bulkley, of New York, presented a paper on this subject. He referred to the great popularity which sulphur had had in the treatment of skin diseases, and of the indiscriminate-ness of its employment. His present aim was to show in exactly what diseases sulphur really relieved, and how it should be administered.

First, as to its internal use. *Pure sulphur* was seldom given alone for skin disease. In eczema about the anus and genitals, however, it is very useful, especially if there is any constipation or piles. It may be given with equal parts of cream of tartar, in teaspoonful doses. Sulphurous acid (SO_2) is rarely used internally.

Sulphide of calcium is very valuable in skin lesions attended with suppuration. In *acne* it is often useful, but chiefly in those cases which have a considerable pustular element. It is not of much use in *acne rosacea*. In *hordeoleum* it is very valuable; also in *furunculosis*, relieving not only the symptoms, but preventing further crops of boils. Like testimony may be given regarding its effects in carbuncle and suppurating buboes. True, non-parasitic *sycosis* is sometimes benefited by sulphide of calcium. The drug is liable to be poor, and should have its characteristic smell of sulphuretted hydrogen. Dr. Bulkley usually gave gr. $\frac{1}{4}$ q. i. d.

Sulphuret of potassa probably has the same effect as the sulphide of calcium.

It is undoubtedly the sulphur that does the good in these cases, for other combinations of sulphur, such as the hypophosphite and sulphuric acid, have been found similarly

beneficial. A wonderfully valuable combination of sulphur is that known as "Startin's Mixture":

Ry. Magnes. sulph.....	5j.
Ferri sulph.....	5j.
Acid sulphur. dil.....	5ij.
Tr. gentian.....	5j.
Aquæ.....	5iij.

M. Sig.—5j dose after meals.

This is very potent in reducing cutaneous congestion in such conditions as erythema multiforme, erythematous eczema, and urticaria.

In regard to the use of natural sulphur waters, some benefit is obtained from them, but it is impossible to speak definitely of them until more data are collected. The speaker wished help from any in collecting such facts.

Externally, sulphur has gained its widest reputation in the treatment of scabies, for which it is almost a specific. It should be remembered that sulphur is an irritant to the skin.

It is also beneficial in acne, either in the form of the pure sulphur or the hypochloride, the latter being used as an ointment, about 5j to 5j. Sulphur will also destroy the parasite of favus, ringworm, and tinea versicolor—pure sulphurous acid being the best form for these.

Sulphur vapor baths are of value in very few diseases of the skin. They stimulate the skin and liver, and they destroy skin parasites. But not much more can be said for them.

Dr. Chancellor, of Virginia, testified to the great efficacy of mineral spring waters in skin diseases. In strumous troubles, in syphilides and eczemas, he knew that the sulphur springs of Virginia and other States were very efficacious. In parasitic diseases they are also very valuable.

Dr. Brodie, of Detroit, Mich., said that he had not seen the benefit from sulphur springs that many claimed. Even parasitic diseases could be cured more easily by simple local treatment. In lead-poisoning, however, he had seen very good results. He thought that, as a rule, cleanliness and local applications were just as good as sulphur baths.

Dr. J. V. Shoemaker, of Philadelphia, said that he differed from the speaker in regard to the little value of sulphurous acid internally and the great value of sulphide of calcium. He had used the acid very successfully in urticaria. The sulphide he had found to disagree with digestion.

Dr. Turnbull, of Philadelphia, had found that the sulphide of calcium interfered with digestion so much that he often

had to give it up. The bisulphite of soda, however, was an excellent substitute.

Dr. Chapman, of Brooklyn, spoke of the value of diet in skin diseases. In a case of eczema related he gave sulphurous acid and glycerine, one to three, locally, and cured the case, diet alone having failed.

Dr. Stackpole, of New Hampshire, spoke highly of sulphurous acid in skin diseases, but commended diet as of the greatest importance.

Dr. Galligan, of Pennsylvania, spoke favorably of sulphide of calcium, and had not found it to interfere much with digestion. He thought that the sulphur springs were often of benefit in syphilides. In pruritus vulvæ, he had used the yolk of egg with benefit.

Dr. Bulkley said that he did not understand how the sulphide of calcium should interfere so with digestion. He had never seen this effect when the drug was given in ordinary doses. He thought that it helped acne in only about half the cases.

Dr. J. S. Lynch did not think the sulphide of calcium often interfered with digestion.

The paper was referred.

Strong Galvanic Current in the Treatment of Sciatica.—

Dr. V. P. Gibney, of New York, read a paper on this subject. In 32 cases thus treated at the Hospital for the Ruptured and Crippled, 24 were entirely relieved, 3 moderately relieved, and 5 not relieved. The currents were given daily; sixteen of the cases had had no relapses at date; several others had only slight relapses, and only four had a permanent return. Several cases were related. In one, twenty-seven cells were applied for ten minutes daily for several days, with rapid relief. The duration of the disease in the cases reported varied from a few weeks to several months.

The current should be a stabile one; the labile current is not a constant one. The speaker described the best form of battery. The current should be just as strong as the patient can bear it. The application should be given for ten minutes, or even fifteen, if possible. It should be given twice a day at first, if possible, and kept up for fifteen or twenty days. If by that time no good results ensued, it had better be discontinued. Six to ten seances may secure success. The descending current is preferable.

Dr. A. D. Rockwell, of New York, said that electricity in any form will not always cure sciatica. He cited cases cured by the faradic current.

Dr. L. D. Bulkley, of New York, referred to two cases relieved by the strong galvanic current.

Dr. Geo. M. Beard, of New York, spoke of the relative value of strong and weak currents. In whatever way electricity may be given, it will sometimes cure neuralgia. Practically, he did not find much difference in results which ever way he applied the current—although, on the whole, the positive pole is somewhat soothing, and the negative irritating. He thought that there was much value in the treatment suggested, but there was a caution needed, for he had seen cases injured by over-doses of electricity. He would never begin a treatment of sciatica with such powerful currents, but would use weaker ones at first.

Dr. Caldwell, of Baltimore, remarked that this is the largest nerve-trunk outside of the bony cavities; hence, many cases of neuralgia are due to mechanical interferences, enlargements, tumors, and other pressures. When no form of electricity will avail except to diagnose—and here the surgeon is the proper party to relieve this painful malady—it would be unscientific to continue electricity and palliatives indefinitely.

Hydrobromic Ether.—Dr. L. Turnbull, of Philadelphia, read a paper on this subject [to which we devoted some pages in a recent number of the *Medical Monthly*]. It is quite necessary, in administering the ether to crowd it a little at first. Referring to Dr. Sims' case, where death followed the use of hydrobromic ether, he said that the operation itself was a very serious one, as serious as ovariectomy; further, that there was disease of the kidneys, and that the bowels were moved, after the operation, by ʒij , gr. xiv of sal Rochelle. These and other things in the case led him to believe that the hydrobromic ether was not the cause of the death. He believed that bromide of ethyl was a safe anæsthetic, specially adapted to operations not exceeding forty minutes. He had never claimed, even at the beginning, that it was a *substitute* for ether or chloroform, but that it was a most valuable supplement to those anæsthetics. The more powerful an anæsthetic, the more danger is to be attached to it. This may be laid down as a rule.

SECTION ON SURGERY.—*June 1.*—Dr. W. T. Briggs, of Nashville, Chairman; Dr. C. Powell Adams, of Hastings, Minn., Secretary.

Spinal Extension—Its Modes, Means and Motives.—Dr. Benj. Lee, of Philadelphia, read a paper on spinal extension, illustrated by numerous diagrams, etc. He showed his appa-

ratus for self-suspension. Its mode of employment placed the extending force in the patient's own hands, robbed the operation of all its terrors, converting it in fact into a pleasant amusement.

The author's improved "surgical table," manufactured by Johnson, of Philadelphia, was then exhibited, and the method of its employment described. It was thought to be the most perfect piece of mechanism ever constructed for the purpose of producing horizontal extension of the spine. The entire absence of all jerk or jar in its action enabled us to make extension to a very considerable degree, almost without consciousness on the part of the patient.

The indirect or mediate object of spinal extension was always the overcoming or redressing of a curvature, and the concomitant deformity of the trunk for a brief space of time, during which a fixed dressing could be applied, or a cast taken from which a removable jacket could be made. With the former of these plans, namely, the application of the plaster-of-Paris jacket, the name of the distinguished President of the Society was associated the world over.

Phimosis as a Cause of Nervous Symptoms, with Results of Operations.—Dr. Geo. M. Beard, of New York, read a paper on this subject, and gave the results of operative treatment in several of his cases. Lallemand had first brought this subject to professional notice, and to this author also belonged the credit of having organized this department of surgery and neurology. Dr. Beard then reviewed the literature of the subject, and finally formulated his conclusions as follows:

(1) There were a large number of neurasthenic symptoms in addition to those previously referred to by writers. These might be caused or aggravated by phimosis, or the presence of this condition might interfere with their cure. Adherent and redundant prepuce might act in the same way. Among these symptoms are 1, Morbid fears of various kinds, as fear of society, of places (topophobia), of being alone (monophobia), etc.; 2, dilated pupils and congestion of the conjunctivæ; 3, causeless and persistent flushing; 4, sweating of the hands; 5, palpitation and cardiac oppression; 6, twitchings of muscles—the so-called fibrillary contractions; 7, lumbar and dorsal pain and tenderness; 8, general or local itching; 9, great hyperæsthesia of the urethra; 10, irritable prostate; 11, relaxed scrotum; 12, frequent and difficult micturition.

(2) There might be a good degree of phimosis, and the prepuce might be both redundant and adherent from birth without exciting any nervous symptoms that could be traced

to these conditions. In at least one-half of the healthy adults there was either phimosis or redundancy of the prepuce, with or without adherence.

(3) When the nervous symptom had become depleted of its force, then this local irritation from phimosis or allied conditions might become the excitant or aggravant of nervous symptoms.

(4) The great points in the operation of circumcision in these cases were thoroughness and care in details.

(5) Immediate or startling results were not to be expected.

(6) Long confinement after operations of this kind was not always necessary.

(7) Keeping back the prepuce and stretching it was sufficient in some cases.

(8) It was not well to depend exclusively upon the operation for the cure of the symptoms that were connected with phimosis. Accessory and supplementary treatment might be needed. This was the same as that employed for general neurasthenia, as described in the author's work on that subject.

Out of eighty cases of general and sexual neurasthenia, thirty-one cases, or over one-third, had either phimosis or adherent and redundant prepuce. In studying this subject in a Russian bath establishment, it was found that at least one-half of the patrons had either phimosis or redundant prepuce.

Dr. Hart, of Plainfield, related other cases, in which an undoubted connection existed between redundant prepuce and various nervous symptoms. Circumcision was not always necessary. Simple splitting of the prepuce might often suffice.

Dr. Maxwell, of Delaware, remarked on a case which had occurred in his practice: A boy, five years old, who made slow recoveries after attacks of diphtheria and pneumonia. Upon examination, orificial contraction was ascertained to be present. The urine also contained saccharine matter. Circumcision was performed, and resulted in an entire removal of nervous symptoms. Anti-diabetic treatment had formerly lessened the amount of sugar in the urine, but after the operation, diabetic urine was never passed.

Dr. Lee, of Philadelphia, referred to the probable connection between the disorders of ovulation and the establishment of lateral curvature of the spine in young females. He remembered cases of hip disease where redundant prepuce had

existed, but he had had no idea of any interrelation between the two.

Dr. Herrick, of Cleveland, mentioned a case and alluded to disturbances resembling those described by Dr. Beard; but this case was not amenable to treatment by circumcision.

Dr. Hard, of Illinois, had advised the operation of circumcision in cases of mental alienation. This was done merely to make an impression on the patient, and had been practised where preputial redundancy did not exist.

Section of the Infra-Orbital and Inferior Dental Nerve for Neuralgia.—Dr. John T. Hodgen, of St. Louis, read a paper on this subject. He said that by using a hook, or an elevator, after section of the nerve, this might be drawn out of its canal and then nipped off. This was done to preclude the possibility of the re-establishment of union, which would lead to the return of neuralgia.

The details of his methods of operating were then given. The inferior dental nerve was exposed by suitable incisions, and then looped up and cut. He had operated on twelve patients, operating in all twenty-four times. Sometimes, when the infra-orbital had been cut, the neuralgia had attacked the inferior maxillary, and *vice versa*.

In every instance, the pain ceased immediately after operation. But in some it returned after a longer or shorter interval. All patients were immensely benefited, some were entirely cured. In others final success had not yet occurred.

Dr. J. R. Wood, of New York, thought the first operation was not a difficult one with the right appliances and plenty of light. His own method of operation differed somewhat from that adopted by Dr. Hodgen. A disk of bone was removed from the anterior wall of the antrum; another disk was then removed by a smaller trephine; the spheno-maxillary fossa and foramen rotundum were reached, and by curved scissors, the nerve was cut where it made its exit from the foramen. Meckel's ganglion, he added, should be removed if success was expected to be permanent. But in the majority of cases, although all the nerve was removed, the terrible malady would return. Relief often followed immediately after operation, but this did not permanently continue. Concerning operations on the jaw, he had repeatedly trephined, and the patients had generally been quite cured. Still the pains might come back. On the other hand, the pains were so excruciating that any operation was warranted.

Dr. Pancoast, of Philadelphia, said that the portion of nerve removed might include its only diseased portion, and

thus lead to a cure. Dr. Pancoast's father was said to have removed a part of the nerve, even beyond the foramen ovale, in four successful cases.

Dr. Hart, of Philadelphia, related a case where Meckel's ganglion had not been removed and cure had taken place.

Dr. Campbell, of Georgia, thought that, in cases reported as such, Meckel's ganglion had not always been removed. He believed in the central origin of this affection. Hence, removal of peripheral nerve-portions could not be expected to result in a cure.

Newly Devised Orthopædic Appliances.—Dr. Chas. F. Stillman, of Plainfield, N. J., showed a brace, devised by himself, for weak ankles, which fulfilled all the therapeutic requirements. The points for which he claimed originality and excellence were: 1, placing the hinge-joint at the back of the heel; 2, making the brace and shoe distinct.

Dr. Hingston, of Montreal, said an early tenotomy was always the best remedy. He would, however, not operate if the foot could be easily brought into proper position; and it was in such cases that mechanical appliances should be employed.

White Swelling or Synovitis of Joints.—Dr. Pancoast, of Philadelphia, first showed samples of black silk for sutures, which he preferred to the ordinary white silk, because the latter commonly contained impurities from lead salts. He then described his method of operating for varicocele, in which he employed a zinc button, and exerted great force in the tying of the ligatures. Here, also, he used strong black silk. Forty cases of amputation at the metacarpo-phalangeal articulation were then instanced. In these he had, contrary to the method commonly in vogue, employed a volar flap. The success had invariably proved gratifying.

The great principle in the treatment of articular affections was rest, and not extension. The latter often had bad effects from irritation of the synovial membranes, which were the chief seat of disease. In the stage of spastic muscular contraction of such cases, tenotomy and myotomy were recommended as tending to relieve the spasm. In the advanced stages exsection alone could be relied upon. Extension would only aggravate the disease in those stages, because the synovial structures would be additionally irritated by the extending force. The hot iron was recommended as the most efficient revulsive in articular affections. Rest must be enforced, and suitable antiphlogistic treatment, combined with

this, was far superior to any apparatus for permanent extension.

Dr. Madden, of Massachusetts, stated that a much thickened synovial membrane frequently simulated articular effusion. In his 240 cases of exploratory articular punctures, he had purposely abstained from using antiseptic precautions, and had never found the slightest symptom of inflammatory reaction.

June 2.—**Puncture of Joints**—Dr. Martin, of Massachusetts, said that puncture of joints was regarded by the profession at large as a *dernier ressort*, but, in his experience, it should be performed early. There is no danger in this procedure. His own investigations on the vascularity of joints tended to confirm Dr. Pancoast's views. Sir Benjamin Brodie supported the view of non-suppurative of cartilage, in inflammatory processes involving joints. Dr. Martin also showed his new adhesive plaster, made of India-rubber, in combination with Burgundy pitch and balsam of tolu. This plaster was devoid of all tendency toward deterioration. United States Army Surgeon's Adhesive Plaster was the name by which it was already known to some members of the profession.

Dr. Nanerode, of Philadelphia, referred to Dr. Pancoast's paper, and said that already irritated cartilaginous surfaces must be kept apart by extension to facilitate healing.

Dr. A. C. Post, of New York, observed that he had for some time past been in the habit of employing fine sutures of black silk. The prime factor in treating articular affections was rest to the synovial membrane, and not the removal of pressure from the articular cartilages.

Urethrotomy.—Dr. Hinton, of Canada, in connection with Dr. Pancoast's urethrotome, said urethrotomy was too often performed. Very frequently it was a quite superfluous and always a very dangerous operation. Dilatation was more satisfactory.

Dr. Pancoast entirely agreed with Dr. Hinton, and explained that his instrument was often used only for superficial nicking, followed by the use of bougies.

Dr. Campbell, of Vermont, asked how long the bougie was allowed to remain in the urethra.

Dr. Pancoast answered "as long as the individual exigencies seem to require."

Compound Complicated Hare-Lip.—Dr. James L. Little, of New York, read a paper on compound complicated hare-lip, illustrated by three cases—all brothers, aged respectively 22,

18, and 9 years. They also showed cleft palate. No hereditary tendency was ascertained. There were five girls in the family; these were perfect.

Dr. Atlee, of Lancaster, spoke of a family which contained seventeen members afflicted with hare-lip.

Dr. Vanderveer, of Albany, instanced similar cases, which spoke in favor of early operations. Sir William Fergusson always operated twice.

Dr. Atlee strongly advocated early operations.

Dr. Westmoreland, of Georgia, said he had operated on a child only eight days old.

Dr. Sayre, of New York, had operated on a child four days old. The best time to operate was before the lips were actively employed for sucking. Dr. Van Buren had assisted at the operation. An anæsthetic was not employed.

Dr. McGuire, of Virginia, only saw one successful case in his practice.

Dr. Hamilton, of Ohio, had operated on a child twelve hours old. Other operations were also cited in support of Dr. Sayre's views concerning the advisability of early operations.

Surgical Treatment of Naso-Pharyngeal Catarrh.—Dr. D. H. Goodwillie, of New York city, read an original and exceedingly interesting paper on this subject. Respecting the etiology of naso-pharyngeal catarrh, the history commenced very early in life. This is particularly the case in deviations and exostosis of the nasal septum. Respired air must pass through both nostrils alike in health. *In the same proportion that respiration is prevented through the nose—the gate-way to the lungs—will there be catarrhal conditions of the upper air passages, and in many cases reaching the lungs ultimately.* Of the passages through the nostrils, the inferior meatus is the most important, as it is the chief respiratory passage, and a canal for carrying off of the nasal secretions. Air passing through the nose is raised more than two degrees in temperature than when respired by the mouth.

Some of the following pathological conditions cannot be relieved by medical treatment, but can only be dealt with surgically. viz.: (1) Exostosis; (2) deviated nasal septum; (3) hypertrophy of the erectile cavernous tissue on the turbinated bones; (4) polypi; (5) necrosis (strumous and specific); (6) chronic antrum disease; (7) chronic maxillary abscess from tooth disease.

Exostosis of the turbinated bones is not frequent, except when

it is associated with deviations of the vomer and cartilaginous septum.

Hypertrophy of the erectile cavernous tissue covering the turbinated bones (as fully described by Dr. Bigelow, of Boston), closely resembles that of the penis. The Doctor exhibited two wax models of cleft palates. This tissue, in its erectile condition, could be seen in one, while in the other, this erectile tissue was in its state of non-erection. The erectile condition of this tissue, together with the hairs in the vestibule of the nostrils, act as faithful sentinels to protect the pulmonary organs from all impurities in the respired air. By constant irritation of this delicate erectile tissue by impurities in the tidal air, and by mechanical irritation, caused by the forcible blowing of the nose in chronic catarrh, a great increase in this tissue is produced, so that normal respiration is much or altogether interfered with.

Treatment of exostosis of turbinated bones consists in cutting off the growth by drilling at its base, and then remove the mass by the nasal forceps. The exostosis on the vomer is removed by aid of the revolving multiple knives by the surgical engine.

For deviations of the cartilaginous septum, he has found no operation so successful as removing a section of the bent portion by means of his excising nasal forceps, of which there are several sizes.

Dislocation of the lower end of the cartilaginous septum is removed by making an incision over the protruding septum, denuding the soft parts; then amputating and closing the tissue by sutures.

Hypertrophy of erectile tissue on the turbinated bones is removed by means of the thermo- or galvano-cautery—the nose being protected by a shield, of various sizes, from the heat.

Dr. Goodwillie exhibited many of his instruments, viz., his improved Paquelin cautery, galvano-cautery electrodes, ex-nasal forceps, drill, revolving knives, nasal speculum, etc.; and he gave his method of preventing hæmorrhage, and spoke of the importance of careful dressing after all surgical operations. He reported some cases, and exhibited them by wax models, before and after the operation. As examples, the following will suffice:

G. G., Ontario, Canada, has had chronic naso-pharyngeal catarrh. At first the discharge passed from the anterior nares, but as this opening closed by thickening of the erectile tissue, the discharge passed posteriorly and was expecto-

rated or swallowed. The voice was quite nasal. There were adhesions from the pharyngo-Eustachian orifice to the pharyngeal folds. The uvula was enlarged. He removed the hypertrophied tissue covering the inferior turbinated bones, from the vestibule of the nostrils to the pharynx, by the thermo- and galvano-cautery. He then amputated the uvula. This gave free normal respiration and restored health.

Dr. D. M. had catarrhal trouble for many years. This was excited by antrum trouble, from which he has suffered for twelve years. He has dislocation of the lower end of the cartilaginous septum from pressure in blowing his nose. He also had necrosis of the nasal wall of the antrum and inferior turbinated bone on the left side. Under an anæsthetic, he amputated the cartilage, removed the necrosed nasal wall and turbinated bone, and trephined into the antrum through the alveolus. This took away his trouble.

A letter was read from the family physician (Dr. Le Bremond, of New York) of a lady—a prominent contralto singer—upon whom Dr. G. had operated. She had lost her voice three years previous to October 26th, 1879, when she came under treatment. After the first operation for removal of hypertrophied erectile tissue, her singing voice began to return; and after the last operation, she sang four times, with *encores*, at a public concert, April 22, 1880.

Many other cases were given showing good results.

Dr. A. C. Post, of New York, read by title a paper on a case of *torticollis rapidly and completely cured by open division of the sternal and clavicular origins of the sterno-cleido-mastoid muscle, followed by elastic traction.*

A New Ether-Inhaler, and a New Form of Transfusion Apparatus, was described by Dr. Jos. C. Hutchinson, of Brooklyn.

A Paper on Hip-Joint Disease, by Drs. De Forrest Willard and E. O. Shakespeare, of Philadelphia, was read by Dr. Willard. It related a case where death had occurred in the early stage of the disease.

Tapping of the Pericardial Sac.—Dr. John B. Roberts, of Philadelphia, read a paper on this operation, which was proposed over two hundred years ago. The fifth intercostal space, about five centimetres to the left of the median line, is the best place for the procedure of tapping. Large serous effusions gave the most brilliant results. The operation might be repeated if necessary. The canula could be left *in situ*, and the sac washed out with antiseptic solutions. Forty-two cases were mentioned, with fourteen recoveries and twenty-eight deaths. Paracentesis of the pericardium would,

in future, have to be performed at an earlier period than heretofore.

Dr. Dowell, of Texas, referred to a peculiar case where effusion was simulated by an entirely different pathological condition. In this instance tapping would probably have led to death.

Dr. C. A. Leale, of New York, read a paper on **Thoracentesis**, in which this operation was warmly advocated. Serous effusions were said to be amenable to treatment by using a trocar. In purulent collections, on the other hand, free incisions were advised. Continuous drainage might become necessary. A case of empyema, entirely cured without the operation, was mentioned. The following conclusions presented: Thoracentesis was easily performed, and required no special instruments. It ranked among the surgical operations most conspicuous for saving of life. It was justifiable to prevent pain and prolong life, even when an ultimate recovery of the lungs could not be expected. Complete absorption had followed thoracentesis, when pus, air, or serum had been left in the pleural cavity. The pleuræ might be restored to health after thoracentesis. Heetie fever, the result of unhealthy decomposition, ought to be relieved by a free incision.

The author's recorded illustrations had shown that thoracentesis could be successfully performed on the nursing infant, as well as on the adult. It could be resorted to when both lungs were diseased, and even in far advanced pulmonary consumption. Relief from distressing suffocation could be obtained, life prolonged, and painful death averted.

Cystotomy for Cystitis in the Male.—Dr. Robert F. Weir, of New York, read a paper upon the above subject, which embodied the results of forty-seven cases, in which the operation of cystotomy for cystitis had been resorted to. Dr. Willard Parker's claims to priority were shown to be valid.

Of the 47 cases collected by Dr. Weir 13 died, 10 of which deaths were due to advanced kidney diseases, and only 3 to the operation itself. Of the 34 cases that recovered, 23 were cured by the operation absolutely, or were so much relieved as to be able to return to their vocations, to hold their urine for several hours; 7 were relieved to a moderate extent, and 4 completely failed in affording any benefit. Not all, however, were treated by lateral lithotomy; in only 32 cases was this method used, the bilateral incision five times, and the median ten times. When the median section was resorted to, in six of which a cure resulted, either a supplementary

incision (three times) into the prostate was done, or the finger (once) or two fingers (once) were introduced into the bladder, or by a bivalved speculum the vesical orifice was stretched (five times) to the diameter of an inch. Hence, when the median operation was resorted to, incision or laceration of the prostate was of necessity conjoined with it. A permanent fistula was more apt to occur after the median operation. To afford success, not only a free opening into the bladder, preferably by the lateral incision, must be made, but also the wound should be kept open as long as possible by either introducing the finger or a large tube frequently during the first ten days after the operation, and after that time oftentimes a tube can be permanently borne. Dr. Weir also cited a number of cases where, in the performance of lithotomy or cystotomy, the hypertrophied median lobe or other portion of the prostate, had been removed without enhancing the risk of the operation, and advised, after consideration of the subject, that an endeavor should, if possible, be made in the performance of cystotomy in the aged (or past fifty-five) to remove any enlargement of this gland.

Dr. Gouley, of New York, remarked that no patient would get well after cystotomy unless there had been a free division of the urethro-vesical orifice. Rest alone would not effect a cure. Mercier had reported about 400 cases of such division of the urethral valvule. The prostatic valvules were also incised by this physician. In some cases, however, even valvular division would not produce the desired result of an effectual cure.

Dr. Dawson, of Cincinnati, concurred in the views expressed by Dr. Gouley, and cited an interesting case which had been intractable to all the methods he had employed.

Dr. Mynter, of Buffalo, also had performed cystotomy, but after closure of the wound the patient's troubles had returned.

Dr. Hart, of Plainfield, instanced a case where a drainage-tube had been placed in the rectum, allowing the residue urine to pass off in that way.

Dr. Hamilton, of Buffalo, said he had given infinite relief to a woman who had suffered intensely for a long time from severe cystitis. An ordinary soft catheter was allowed to remain in the bladder till relief was afforded, and permanent cure followed.

Dr. A. C. Post, of New York, referred to a case which had been commented upon by the author of the paper under discussion. The actual cautery had been applied in this case

at two points over the hypogastric region. An absolute cure followed.

On motion of Dr. Dawson, a committee was appointed to report what alterations, if any, were necessary in the by-laws, to enable members to publish papers read by them either in whole or by abstract, in advance of the publication of the annual volume of the Transactions of the Association. Drs. Bronson, Dawson and Pancoast were appointed on this committee.

Skin Grafting.—Dr. L. Turnbull, of Philadelphia, read a paper on skin grafting, with illustrative cases. The paper had been previously read before the Philadelphia County Medical Society, December 17, 1879.

Dr. Burchard, of New York, related a case of great interest, in which 200 grafts had been taken from an amputated thigh, three hours after its removal, and inserted into an immense ulcerated surface over the breast of a woman. A stimulus had been imparted to the edge of the wound by the implantation of these cutaneous bits. Later on, 500 grafts were placed on the ulcer. The extent of the wound considerably diminished after these procedures. To Dr. Van Wagenen belonged all the credit of originality in this matter.

Dr. W. A. Byrd, of Quincy, Ill., read his paper on **Laparotomy and Colotomy, with Formation of Artificial Anus for Intestinal Obstruction.**—A farmer, aged 43, had suffered from enteritis for some months. After describing the operation in all its details, the following conclusions were reached: No one should be allowed to die from intestinal obstruction without, at least, an exploratory incision. If there was much distention of the bowels with gas, an aspirator should be used, as intestinal paralysis might be produced from prolonged over-distension. In occlusion, in cases where abdominal section was contraindicated, an artificial anus should at once be established. Proper rectal alimentation and medication very materially aided the patient's recovery. It is not required of the surgeon to diagnose the precise cause of the obstruction so long as the diagnosis of its existence could be determined.

Dr. Gouley, of New York, agreed with Dr. Byrd in his condemnation of delay in doubtful cases. Still, time must be given to make sure of the diagnosis. A case was cited where delay had unquestionably led to death. Forty-seven other cases were instanced with only one recovery, and this in a case where an operation had been performed.

Dr. Dawson remarked on the difference in danger between

cutting into a previously unirritated peritoneum and one where continual irritation had already established a comparative tolerance of exciting factors. Some cases bearing on the subject under discussion were then adduced. Fluid injections were also recommended preparatory to severer measures. Sometimes Dr. Dawson had found the fluid injected into the rectum escape at the mouth. Spontaneous cure might occur. Cutting into an acutely inflamed peritoneum was too dangerous a practice to justify a universal adoption of laparotomy for acute obstruction of the intestines. The difficulty of diagnosis in many cases of this kind was dwelt upon. Laparotomy should remain a last resort after failure of all other methods.

Dr. Jewett, of Massachusetts, had found no difficulty in introducing rubber tubes into the rectum to the distance of three feet. A case of impacted feces, illustrating the utility of rectal injections of warm water by means of such rubber tubes was described.

Dr. Gouley, of New York, said that abdominal section should be practised before peritonitis had set in. He then described an acute case which clearly showed that the policy of waiting was disastrous. In subacute and chronic cases post-peritoneal abscess would gradually develop, and such cases did not indicate abdominal section.

Dr. Weist, of Indiana, suggested that in cases where an operation was not practicable, great efforts would not always be rewarded by success. The let-alone policy had, in his experience at least, sometimes secured the most gratifying results.

June 3.—**Pathology and Treatment of Syphilis.**—Dr. F. N. Otis, of New York, read an exhaustive paper on this disease. Excessive local accumulation of leucocytes account in a rational and satisfactory manner for all the various syphilitic manifestations of the second or active stage. Mechanical pressure of such cellular aggregations produce the great variety of symptoms observed in connection with syphilis. The therapy must therefore have in view the elimination of such superfluous and deleterious cell-elements. Nature got rid of these products by tissue metamorphosis—a process known as fatty degeneration. Small doses of mercury, long continued, materially assist this process. The value of iodide of potassium was also dwelt upon. The virus of syphilis is merely an influence, not a physical entity.

The first variety showed small cellular infiltration; the second giant cells; the third also cellular accumulation.

Thorough local treatment was emphasized. His method consisted of complete removal by the scoop, with subsequent application of the actual cautery. Excision might also be followed by the application of chloride of zinc. Still, relapses were apt to occur.

Treatment of Syphilis at the Commencement and End of the Nineteenth Century, by Dr. Chas. R. Drysdale, of London, Eng. This paper was read by Dr. Hutchison, of Brooklyn. After a short historical résumé, the author explained his usual method of treating syphilitic patients. These had usually been young women under the age of twenty-five, the occupants of the Rescue Society's Hospital, at London. He had used no other form of mercury with the girls but the green iodide. At first he had given one-third of a grain twice daily; but his experience soon showed him that even these small doses not unfrequently caused salivation in the course of a month or so of daily treatment. For this reason he had latterly given only one-sixth of a grain of that salt, in combination with two grains of extract of henbane, in a pill twice daily. This dose seemed to be well tolerated, and did not produce salivation, even when continued for months. Under this treatment the disease went on in a favorable manner. For the most part the secondary eruptions were benignant, accompanied occasionally by slight alopecia and mucous tubercles, which latter symptoms were amenable to local treatment by means of chlorine lotions and isolation.

The occasional occurrence of iritis, rupia, sore throat, and apparent rectal syphilis, were noted, and the paper closed with the following conclusions :

1. The initial lesion requires no mercury.
2. Syphilis, when iodine is used without mercury, is usually mild.
3. Syphilis, when treated with very small doses of iodide of mercury, is usually mild.
4. Iritis may supervene while patients are taking courses of mercury; but it is usually amenable to treatment by blisters and atropine.
5. Tertiary syphilis is rare after iodide of potassium and iodide of mercury.
6. It is best treated by large doses of iodide of potassium, adding mercury when that remedy fails.
7. Cerebro-spinal syphilis supervenes in some cases early in the disease, and we may then give both specifics, or iodide of potassium alone. The same holds good in syphilis of the testes, liver or lung.

8. Mereury and iodine probably act by their power of destroying low vegetable organisms in the tissues—the yeast of syphilis (Hutchinson).

9. The dose of mereury ought to be very small.

Dr. Henry C. Martin, of Boston, said the late so-called tertiary and quaternary manifestations are simply sequelæ, and not necessary effects of syphilis. This view was in entire agreement with known pathological processes, and did away with the necessity of supposing a specific virus as the cause of the malady. In addition, he concluded, it was in the fullest harmony with recognized physiological and physical laws.

Development of the Osseous Callus.—Dr. H. C. Marey, of Cambridge, Mass., read a paper on the development of the osseous callus in the different fractures of the bones of men and animals. He summed up the different factors which entered into the modes of repair in fractures, as follows:

The germinal matter which was effused in the vicinity of a fracture must be placed under certain definite conditions to secure therefrom an ossific development. In periosteal transplantation, Ollier had shown that the periosteum must furnish an exudation *sui generis*, and that this occurred only under irritation. The process of consolidation was not uniform, but varied with various influencing factors. Strictly speaking, there was no primary union in bone, similar to that of other tissues; but, by careful and complete adaptation of fractured surfaces, we placed the various factors of repair in such a relation that they might most readily combine to aid in the repair and produce a more certain and satisfactory result.

Dr. Nanerède, of Philadelphia, took exception to the term necrosis of the periosteum, as employed by Dr. Marey. He thought there was merely a return to the foetal state of this membrane in cases of fracture.

Dr. Herriek, of Ohio, thought that softening of the fractured ends of the bone always occurred. This, in his opinion, would account for the shortening resulting after fracture, in spite of the employment of extension.

Dr. Sayre rose to a question of privilege, stating that the patient he had operated on for hare-lip was four hours old, and not four days, as had been stated in the report of the daily edition of yesterday's *Medical Record*.

Dr. H. G. Piffard, of New York, then spoke on **Lupus**. He stated his belief that the pathological significance of lupus was that of a serofulous skin affection. Three varieties were

given: 1. Superficial, non-ulcerative lupus, or erythematous lupus. 2. Ulcerative lupus with superficial ulcerations, never penetrating beneath the skin. 3. Lupus with deep ulcerations invading deeper tissues.

The Elastic Bandage.—Concerning the application of the elastic bandage, as related to the treatment of articular affections, Dr. Martin said that the bandage should be applied with intermissions, otherwise vesication would supervene. Pain rarely attended the application of the rubber bandage; even a raw surface should not deter the surgeon from re-employing it, as this and similar conditions, however angry in appearance, were not essentially dangerous.

Some drawbacks, incidental to this method were then adduced. These were chafing, profuse sweating, and occasional extreme pruritus. The intervention of cotton or lint reduced such annoyances to a minimum. Washing with tar soap was useful in eczema; vaseline might also be employed. He is now in the habit of employing much thinner bandages than formerly.

Dr. Nancrede, of Philadelphia, warmly advocated antiseptic surgery, taking exception to Dr. Martin's views concerning it. The unanimous opinion of competent persons, in a certain Philadelphia hospital at least, was altogether in favor of Listerism.

Radical Cure of Inflammation by Ligation of the Vessels of Supply. Dr. H. F. Campbell, of Augusta, Ga., observed that increased vascularity was the essential factor of inflammation. Heat, redness, pain and swelling were usually mentioned as such, but increased blood-supply was certainly the principal one of these. He then related his experience with cases involving inflammatory processes, which had been treated by ligation of the supplying vessels; seven cases affecting the lower extremity, and eight involving the arm had been thus treated. The results had invariably been satisfactory, sometimes even unusually and surprisingly so. Occasionally, as in a few cases affecting the arm, collateral circulation became so rapidly established that the inflammation would soon be renewed. Ligation to prevent inflammation, however, was dangerous and inadvisable. He only recommended ligation for already existing inflammatory processes, with a view to effectually stopping their progress.

SECTION ON OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN.—*June 1.*—Dr. J. M. B. Maughs, St. Louis, Chairman; Dr. Robert Battey, Rome, Ga., Secretary.

Battey's Operation in Epileptoid Affections, was the title of the first paper read by Dr. J. Marion Sims, of New York.

Like all innovations, Battey's operation had had to fight its way; but, from the favor it had received, in this country and in Europe, the time would soon arrive when it would be recognized as a legitimate operation. He had performed it eleven times—the first four cases occurring before he adopted the antiseptic method; the last four being performed with full antiseptic precautions. He desired to report the last four cases. Three of these were cases of epileptoid convulsions associated with the menstrual molimen, and the other was one of hystero-epilepsy of a peculiar and unique character.

The first patient was 30 years of age. Her menses appeared for the first time at 18, and were very painful during the whole of the flow. The dysmenorrhœa was accompanied with cramps and severe pain in the back, through the pelvis, down the thighs, and in the back of the head. She also had nausea and vomiting every day, and hysterical spasms occasionally during the flow. She was married at 22, and all her symptoms seemed to have been aggravated. About six weeks after her marriage she had epileptoid attacks during the menstrual period. At first they were slight, but afterwards, of great length and severity.

When Dr. Sims first saw her, in April, 1877, she had vaginismus, vaginitis, retroversion of the uterus, hypertrophy of the posterior wall, flexure and stenosis of the cervical canal, and both ovaries were enlarged and exceedingly tender on pressure. He was satisfied that there was no remedy for her but in Battey's operation; but, as he was on the eve of departure for Europe, he did not see her again for two years and a half.

On January 12, 1880, Battey's operation was performed at St. Elizabeth's Hospital, New York. Both ovaries were removed, and she recovered from the effects of the operation without any untoward accident. She has never had a single convulsion since the operation, and her health has improved in every way. She is now a happy wife and a useful member of society. Before the operation the sexual appetite was very strong, but not morbid.

The second case was also one of hystero-epilepsy. The patient was 30 years old and unmarried. When Dr. Sims first saw her, in October, 1879, she was weak and miserable, and never for one moment free from pain, which radiated from the pelvic organs. She also suffered from severe dysmenorrhœa, and the uterus was retroverted. Both ovaries were exquisitely sensitive on pressure, and the pain thus oc-

casioned radiated through the back and hips. Battey's operation was performed December 12, 1879, and she recovered rapidly from it, suffering only from abscess in the track of the sutures closing the abdominal incisions. After the operation, she was for the first time in ten years free from pain, and, although still weak, her health bade fair soon to be better than it ever had been.

In the third case, likewise one of hysterico-epilepsy, the patient died, as Dr. Sims believes, from effects of bromide of ethyl, twenty-one hours after the operation. The case had already been made the basis of a paper on this anæsthetic, which he read before the New York Academy of Medicine in March last.

The fourth case was a very peculiar one. The patient was 20 years old and unmarried. During her childhood she was subject to convulsions with every attack of disease from which she suffered, and also whenever in an anæmic condition. Menstruation appeared at the age of ten and a half years, and with it she always had convulsions until she was fourteen. Under treatment, the convulsions then ceased for a short time, except during the menstrual period, when they invariably recurred. This comparative freedom from convulsions continued during a residence of six months in Europe, but on her return to America they came on again with great frequency and severity. She sometimes had a dozen at night and half a dozen during the day. She described the aura as starting from the uterus and radiating toward each ovary, where it often stopped. But if the sensation went beyond to the epigastrium, it always resulted in this terrific convulsive explosion. Menstruation was irregular, scanty and painful. Pressure over the uterus and ovaries by conjoined manipulation caused the sensation of the aura, but did not actually produce convulsions. One peculiar point about the case was, that consciousness was never lost during the seizures. After trying every method of treatment without relief, Battey's operation was performed on the 11th of January, 1880. She soon recovered from the effects of the operation, but the convulsions were not controlled by it. The latest reports showed that she was improving, however, at the institution of Dr. Mann, at Fort Hamilton, and hopes were still entertained of her recovery.

After some general remarks on the operation, Dr. Sims described his own method of procedure as follows: "I use the simple abdominal incision, as we usually make it for ordinary ovariectomy, midway between the umbilicus and sym-

physis pubis. The patient lies flatly on the back, with her knees a little flexed, and an incision three inches or three and a half inches long is made between the recti muscles down nearly to the pubic bones. As soon as this is done, and before the peritoneal cavity is opened, the Sims' uterine elevator is introduced into the cavity of the uterus (whether in a normal position or otherwise), and it is raised by the instrument locked at right angles, and the fundus is held firmly just above the symphysis pubis by an assistant, who holds the handle of the locked instrument immovably until the operation is completed. The peritoneum is now opened, and the fundus uteri is found in contact with the lower end of the abdominal incision. The fundus is grasped, the finger passed along the Fallopian tube on one side until the ovary is reached, at the same time, the fundus of the uterus is turned by the elevator to the opposite side from the ovary that we are reaching. With the fore and middle fingers, the ovary is brought to the surface, the pedicle ligated, and the ovary removed. Then, by rotating the handle of the elevator to the opposite side, the other ovary is elevated correspondingly nearer the external incision, when the fore and middle fingers are passed along the Fallopian tube as a guide until the ovary is found and brought to the surface and treated in the same manner as the first. After we are satisfied that the peritoneal cavity is dry and cleared of all coagula and all oozing blood, we proceed to close the external incision by sutures." Great stress was laid on the importance of perfect antiseptic precautions. In each instance the ovaries were diseased, having undergone cystic degeneration.

True Import of Oophorectomy, or Spaying for Reflex Disease, more Particularly in Epilepsy, Hystero-Epilepsy, or Catalepsy, was the title of a paper by Dr. M. A. Pallen, of New York. He gave the histories of three cases in which he had operated himself. The first was a patient who came to him in St. Louis in May, 1872. She was thirty-two years of age, and had been afflicted with epileptiform dysmenorrhœa for twelve years. Physical exploration revealed the presence in the Douglas pouch of a somewhat elastic and not very tender tumor, about the size of a large walnut, which could without difficulty be returned into the abdominal cavity when the patient was in the knee-chest position, and which he believed to be the detached hypertrophied (cystic?) left ovary. The right ovary was over-sensitive, and strong pressure by conjoined manipulation evoked symptoms not unlike epileptic spasm. The menstrual sufferings were excruciating, and she

declared that she preferred death to the torture they inflicted. It was not until the following December that he felt justified in performing the operation of oophorectomy. The incision was made through the abdominal walls, and both ovaries removed. On the ninth day after the operation, which was immediately followed by no unfavorable symptoms whatever, the patient died of general peritonitis.

Dr. Pallen thought at the time that he was the pioneer in this operation; but five days after its performance by him he was surprised by having handed him Dr. Robert Battey's pamphlet on "Normal Ovariectomy," and he found that Battey had made his first operation about the same time that he himself proposed its performance to the patient. Battey, however, was not the first to make oöphorectomy, nor himself the first to propose it, since Koeberle, of Strasburg, suggested it as early as 1863, and actually performed it successfully in 1869.

Dr. Pallen's second operation took place in 1878, for the relief of hystero-epilepsy, induced primarily by masturbation when the patient was a girl at boarding-school. Clitorrectomy had been performed by a French surgeon, but did not diminish the desire for self-abuse. She had most marked hystero-epileptic attacks pending her menstrual flow, and she felt that her mental condition would rapidly degenerate into idiocy if she could not be relieved. On the 18th of May, 1878, he removed both ovaries. Listerism was thoroughly adopted, no drainage-tract made, and the ligatures of carbolized silk cut short and closed up in the abdominal cavity. She has never had a desire for self-pollution, nor has she had any epileptiform or hystero-epileptic attack; neither has she experienced any menstrual molimen.

His third oöphorectomy was performed February 24, 1880. Mary Ann Mullin had for three months previous to the operation persistent catalepsy, this being the most marked case of true "waxy flexibility" of the muscles that he had ever met with. She had not menstruated for four months, and she had been amenorrhœic previous to her entrance into the asylum. Examination *per vaginam*, with conjoined manipulation, evidently increased the reflex spasm of the eyelids, and suffused the face with epileptoid flushing whenever the ovaries were palpated.

Dr. Pallen believed this was a case of pure reflex catalepsy, in consequence of the suspended ovarian cell-action necessary to menstruation. His mistake, he said, was to attempt to operate in a building already filled with septic germs.

The operation of oöphorectomy or spaying (a castration of the female, as it has been called by Hegar), has now been done sufficiently often for us to arrive at something definite as to its true import. He defined oöphorectomy as a removal of the ovaries, not so much for disease of those organs as for disease produced by change in their action or function. Herein he differed from Prof. A. Hegar, of Freiburg, who had blended true ovariectomy with oöphorectomy. He mentioned that spaying the human female was practised by edict among the Lydians, as Gyges and Andramystes ordered women to be thus mutilated in order that they might take the place of eunuchs in the harem.

In 1641 Platos proposed the operation in hopes of "repressing the lasciviousness" of certain women; but he met with violent opposition on the part of Riolan and Diemeal-roech. From 1641 to 1863, when Koeberle deliberately proposed extirpation of both ovaries simultaneously with ablation of the supra-vaginal portion of the uterus, there are several instances on record of recovery from oöphorectomy accidentally performed. Burnham, of Lowell (in 1854), seemed to have been the first in modern times to have successfully made uterine ablation with oöphorectomy; although he mistook his case for one of ovarian cyst. In 1867 Koeberle put in practice oöphorectomy with uterine ablation, and in 1869 he performed unilateral normal ovariectomy upon a patient who was the subject of hysterical manifestations and affected with vaginismus. She also had retroversion and retroflexion of the uterus; which produced obstinate constipation from intestinal obstruction, with frequent and violent attacks of ileus.

Oöphorectomy was essentially Battey's operation, and it had for its object the production of the menopause, in order to overcome disease developed through the agency of ovarian action. Upon the true pathology of epilepsy, hystero-epilepsy and catalepsy, in so far as they were connected with ovarian cell-genesis, would be the future determination of its true import in the cure of these diseases.

Dr. Robert Battey, of Georgia, stated that the operation was practically out of his hands now; he looked to the distinguished men in the great medical centres to thoroughly test the questions involved in it.

Dr. Trenholme, of Montreal, stated that when in 1876 he performed normal ovariectomy, he supposed that he was the first operator to undertake it; but he found out, six weeks afterward, that Dr. Battey was the pioneer in this field.

Dr. Marey, of Massachusetts, thought that Dr. Sims had been inclined to exaggerate the difficulty of removing the ovaries by the vaginal incision. Both Dr. Battey and himself had practised this method very successfully, and he considered it less dangerous on account of the avoidance of the risk of peritonitis. In one case he had removed the Fallopian tube and a portion of the broad ligament without bad result. In every instance he had followed very carefully the directions of Lister.

Dr. W. M. Findlay, of Pennsylvania, related a case in which Prof. Goodell, of Philadelphia, had performed Battey's operation, *per vaginam* during the past month. She had been the subject of periodical insanity, and at the time of the operation was violently maniacal. The next morning she was perfectly rational, and had remained so ever since.

In answer to a question as to whether there was not great difficulty in removing the ovaries by the vagina when the adhesions were marked, Dr. Battey stated that he had met most serious obstacles in adhesions of the ovaries and other pelvic organs, and in one or two instances to such an extent that the object of the operation was defeated on this account. The object of the operation was to induce the menopause; but he had been astonished to find how small a fragment of the stroma of the ovary would keep up menstruation indefinitely. He had become very strongly impressed with the idea that in some, at least, of the instances of continued menstruation after removal of both ovaries reported by Atlee, Peaslee, and many other authorities, some small portion of one of the ovaries had been unintentionally allowed to remain in the body. Dr. Battey then referred to some of his cases in which the ovaries were so firmly imbedded in adherent lymph that the organs actually became disintegrated in the process of removal. In more than one instance he had therefore failed to perfectly enucleate the ovaries, and thus make a complete extirpation. In every one of his cases, however, he had been able to state distinctly, upon leaving the operating table, whether menstruation would certainly cease, or whether some fragment of the ovary had to be left, and the future result of the case would, therefore, be somewhat uncertain. He was disposed to attach considerable value to the vaginal operation; although Sims, since the application of Listerism in this department, now always performed the abdominal. In some respects, indeed, it was even better in the vaginal operation, since the vagina acted as a funnel, and thus concentrated the antiseptic spray. It

was true that it somewhat obscured the seat of operation; but in this procedure it was much better to depend upon the touch than the sight. The vaginal operation was always preferable in dexterous hands when we can be sure of the absence of adhesions; and the abdominal in conditions the reverse of this. In his fifteen cases there had been two deaths, and in both, the vaginal operation had been performed; but in neither of them had the method adopted anything to do with the fatal result.

Dr. Sims said he should like to be convinced very much that the operation could always be performed as successfully by the vagina as by the abdomen. If there were no adhesions, the vaginal operation required but little skill, while the abdominal one, whether there were adhesions or not, was always difficult. He had made one failure in attempting to remove the ovaries by the vagina, and in this instance the patient was too much exhausted to open the abdomen afterward.

Dr. Thomas had also failed once; but his patient was in such good condition that he afterward made the abdominal incision, and she recovered. He inquired of Dr. Battey, if he had ever failed to remove the ovaries after opening the abdomen.

Dr. Battey performed the vaginal operation in selected cases because it was less dangerous. The cases selected were those where the vagina was large and the ovaries loose in the pelvis. If these conditions did not exist, it was better to operate through the abdomen. He considered the vaginal operation, in many instances, more difficult than Dr. Sims seemed to think, his latter experience especially convincing him of this point.

The idea of Sims in elevating the uterus, he thought an excellent one, and he had no doubt that it would greatly facilitate the operation. Of his fifteen cases, twelve had been performed *per vaginam*, and three by the abdomen, but he thought it likely that if he had them to do over again, these proportions might be reversed.

Dr. Pallen agreed with Dr. Sims as to the superiority of the abdominal operation. Even Dr. Battey, with all his skill, had failed in the vaginal; and he considered it an utter impossibility, with all of the appliances of modern gynecology at command, to diagnose symmetrical peri-ovarian adhesions before operating.

June 2.—**Management of the Third Stage of Abortion with Retention of Placenta and Membranes.**—After some general remarks on the subject of abortion and its treatment, Dr. Jo-

seph Taber Johnson, of Washington, D. C., stated that the chief indication was to completely empty the contents of the uterus as early as possible. Incidentally he alluded to some of the unfavorable effects of ergot in certain instances, occurring in the early months of pregnancy, especially the intense pain to which it gave rise, and the closure of the os by the oxytocic effect of the drug, commencing in the lower segment of the uterus.

Dr. Erich, of Baltimore, for the removal of small fragments of the placenta or membranes, advocated the use of Thomas's short curette, which acted much more efficiently than the unaided finger, and it was also a perfectly harmless instrument. He advised the use of anæsthetics in all cases of retained placenta, not only for the relief of the pain, but for the more thorough performance of the manipulation requisite.

Dr. John Morris, of Baltimore, begged leave to say a word for the men of a past generation, who practised before septicæmia was recognized as it is to-day. He thought that the placenta should be allowed to remain as long as no injurious effect resulted. Nature was quite competent to manage the great majority of cases of abortion occurring in the early stages of pregnancy. This matter of retained placenta he considered a needless bugbear in the eyes of many of the profession. He considered that the bad effect of this teaching was, that it induced the young practitioner to plunge into meddlesome midwifery.

Dr. S. T. Hubbard, of New York, advised, like the last speaker, that these cases should be left alone. His practice was to leave a tampon (medicated with alum when there was much hæmorrhage) in the vagina, and go away without feeling any uneasiness, and he had never seen any bad results from it. There was great danger of setting up metritis or metro-peritonitis by this active interference in abortion, in the early stages of pregnancy.

Dr. Trenholme, of Montreal, also thought that there was little need of operative procedure under ordinary circumstances. When it was necessary to interfere, the finger was better than the curette; especially as many cases of abortion were due to the presence of uterine tumors, and these could not be detached by means of the curette.

Dr. Marcey, of Massachusetts, took exception to the views of the last few speakers. If a retained placenta was liable to produce septicæmia, it was our plain duty to remove it as soon as possible. He had known of many instances of death

following such conditions, and therefore he considered that this was a most important question. He believed thoroughly in the use of the curette in such instances.

Dr. Weeks, of Massachusetts, considered it very difficult to remove the entire placenta before it had become detached; and thought that great injury often resulted from the attempt to detach it. He advised the use of warm, carbolized water until nature had accomplished the detachment.

Dr. Erich spoke of the importance of examining all the clots passed, in order to find the ovum. His rule was to interfere whenever hæmorrhage continued more than a week; which indicated that a portion of the ovum still remained.

Dr. H. T. Hanks, of New York, thought that in all cases where, after abortion in the early stages of pregnancy, a portion of the placenta or membranes remained, there was great danger, and it should by all means be removed. He stated, furthermore, that it was as easy to perform this procedure as to put in a properly adjusted tampon. It ordinarily took but two minutes to dilate the os (with a hard rubber, or other dilator), and two minutes more to remove the retained placenta.

Gastro-Hysterectomy; Exhibition of a Full-Term Uterus, Removed by Laparotomy.—Dr. Isaac E. Taylor, of New York, dwelt for some time on the history of the operation, and then went on to speak of the case referred to in the title. The patient had a kyphotic pelvis. Five years before, he had delivered her by ovariectomy. There were two modifications of the operation of gastro-hysterectomy, Porro's and Mülder's, and he had added a third. Confident that there was a ductile isthmus between the body and the cervix of the uterus, after opening the abdomen and delivering the child by Cæsarian section, he placed two ligatures, almost an inch apart, around the pedicle, and cut off the uterus between the two. Unfortunately, however, retraction of the arteries took place, and he found it necessary to put on a ligature with the "cobbler's stitch." The patient did perfectly well for some time after the operation; but on the seventeenth and eighteenth days phlegmasia dolens made its appearance. This subsided before a week, but she was still ordered to remain strictly in bed. On the twenty-seventh day, however, she was attacked by cardiac thrombosis, and died in a few hours. This unfortunate result, he believed, had no connection whatever with the operation performed. Dr. Taylor spoke of the various advantages of gastro-hysterectomy in

deformed pelvis. Out of the fifty cases now reported, twenty-one had recovered.

Dr. Marcey, of Massachusetts, exhibited a *new uterine dilator*, which operated by graduated elastic tension, and could also be employed by means of a special attachment for restoring the inverted uterus.

Clinical Contributions to the subject of Removal of the Uterus, in whole or in part, by the Extirpation of Tumors Connected with that Organ was the title of a paper by Dr. T. Gaillard Thomas, of New York. There were three circumstances under which complete extirpation of the uterus might now be regarded as a legitimate, and often a very necessary procedure. 1. Malignant disease. 2. As an addendum to the Cæsarian section, after the method of Porro. And, 3, to render practicable the removal of tumors which took their origin in its tissues, or which arose in the ovaries, and whose attachments were too firm to be broken. It was with the third class that the present paper was concerned, which embodied the results of seven cases, in one of which the whole fundus, in another the whole body, and in five of which the entire uterus was removed. Four of the tumors demanding the operation were large solid fibroids with no cystic elements. One was a fibro-cyst, partly solid and partly fluid, and one a peculiar ovarian tumor which, developing between the layers of the broad ligaments, lifted the uterus entirely out of the pelvis, and made it a mere addendum to their walls. Out of the seven cases four recovered and three died. The three fatal cases were all operated on for large solid tumors. Of the four successful ones, one was a case of solid uterine fibroid, one a case of large fibro-cyst, and two, cases of ovarian cysts with large amounts of solid material in their walls. On recognizing this fact, it was to be borne in mind that a tumor susceptible of diminution of size by tapping was not so dangerous for laparotomy as one which, being entirely solid, involved the necessity for a long abdominal incision. Dr. Gilman Kimball, of Massachusetts, has removed the uterus thirteen times (nine times for solid and four times for fibrocystic tumors), with the excellent result of eight recoveries and five deaths. In some of his cases the whole, in others a part only, of the uterus was removed.

June 3.—The Treatment of Fibroids of the Uterus by Dry Earth. Dr. Addinell Hewson, of Philadelphia, read a paper on this subject. For more than twelve years he had been engaged in the investigation of the value of the use of earth in surgery; and notwithstanding the opposition and ridicule that

he had met with, he was glad to announce that its claims were now established to such an extent that he felt amply rewarded for his efforts in this direction. The first case in which he had employed it was one of very large multilocular fibroid. A layer of paste or clay a quarter of an inch in thickness was placed around the abdomen and back, covered with a thin sheet of cotton batting, and secured by a many-tailed bandage. The earth was put on moist in order that the dressing might be more perfectly adjusted. The patient was immediately relieved of all pain, and a reduction in the size of the abdomen was noticeable from the first. At the end of three weeks the abdomen was diminished one-half. Eventually a perfect cure was obtained. It was known that this was no phantom tumor, since at one time the abdomen had been opened (by another surgeon) under the impression that there was an ovarian cyst; when it was found that the tumor was attached to the uterus, and weighed thirty pounds. Fifty cases had been treated in the same way by him, and with almost equally satisfactory results, except in one instance, where the patient died of an intercurrent affection. In measuring the size of the abdomen before and at intervals during the treatment, strips of soft bandage were employed. However great the pain previous to the application of the earth, this was so completely relieved that anodines were never necessary subsequently. The tenderness on pressure was also immediately relieved, and within twenty-four hours the reduction in size was often very remarkable.

On autopsy, a large fibroma of the uterus undergoing cystic degeneration was found; the principal cyst contained twenty pounds of fluid; the solid portion weighed twenty-seven pounds; the total weight of the tumor at the time of death must have been forty-seven pounds.

The effect of the earth, Dr. Hewson considered to be a chemical one. In all cases where it was at all likely to be of service, it was a curious fact that the relief of pain commenced before the first dressing was completed. He exhibited the material he preferred to use, which was the fine yellow clay, such as is employed for making the best Philadelphia brick. Potter's clay did not seem to produce the same beneficial effects.

Clinical Report on a Modified Operation for Cystocele, was the title of a paper by Dr. B. F. Dawson, of New York. In aggravated cases of cystocele, three things were necessary: (1) the restoration of the uterus to its normal position; (2) the restoration of the bladder; and (3) the repair of the pe-

rineum. Having spoken of the operations of others, he claimed for the one devised by himself the advantages of more certainty of cure and less liability to abscess. It was somewhat similar to the operation of Schroeder, but had been performed (1867) before the latter had been called to his attention. The denudation was similar to that of Schroeder, but the procedure differed from his in the folding of the redundant anterior vaginal wall into the bladder.

His first case was one of complete prolapsus (the uterus measuring, from the external os to the fundus, five and a half inches), with rupture of the perineum extending to the sphincter ani. The recto-vaginal and vesico-vaginal walls were completely invaginated, and a sound passed into the bladder showed that organ wholly involved in the prolapse, and occupying the anterior aspect of the tumor. The first procedure undertaken was to diminish the calibre of the vagina by narrowing the anterior wall. The anterior vaginal wall was denuded of mucous membrane by means of Emmet's scissors to the extent of four inches in length by three inches in breadth, the denuded surface resembling an oval in outline. Eight silver sutures were then passed successively, by means of a needle armed with silk, through the vesico-vaginal tissue immediately below the denuded surface, entering and emerging about one-quarter of an inch from the edges, and introduced first at the upper portion of the wound. After all the sutures were passed, with a stiff curved sound, the denuded surface was folded into the bladder, traction at the same time being firmly made upon all the silver wires by means of their ends held in the left hand. This procedure doubled and folded the sutures within the tissues in such a manner as to cause them to act as splints in retaining the resulting fold of the vagina in position, and the denuded surfaces in apposition, even when the sound was withdrawn and before the sutures were twisted. Each suture was then carefully twisted, and perfect apposition of the raw surfaces accomplished. The whole mass was then carefully returned into position. Nine days afterward the vaginal sutures were removed and complete union was found to have occurred. The perineum was then restored, and the case resulted in a perfect cure. The other four cases were of similar character, and in all of them the same excellent results were obtained. In the last one mentioned, however, the operation for the restoration of the perineum was performed the same day as that for the cure of the procidentia and cystocele. The result was that a short time afterward the perineum gave way in

consequence of violent exertion made by the patient, and the cystocele also returned to a slight extent. But subsequently both operations were repeated at an interval of nine days between the two, and the patient had no further trouble.

These five cases were selected as the worst of the eight upon which he had operated, and a sufficient time had now elapsed since they were all performed to demonstrate the efficiency of the method employed.

Still-Birth—Resuscitation after two hours and five minutes, was the title of a paper by Dr. Robert Battey, Rome, Ga. The case occurred after a breech-presentation. The child when born was still, and deeply cyanosed, the cord pulseless, and the heart's action very feeble and irregular. Presently the heart seemed to cease to act altogether. Artificial respiration, in various forms, was attempted without any result, and the nurse was then ordered to keep the child wrapped in hot flannel, while he himself kept up inflation by the mouth. It was more than an hour before the first respiration was made, and it was not until ten minutes afterward that the second breath was drawn. After that the respiration gradually became more and more frequent, and at the end of two hours and five minutes, both the respiration and the circulation seemed nearly normal, while the infant was able to nurse heartily. The child did well for about two hours, when it had a difficulty of breathing, with mucous râles, and died suddenly. This case taught a useful lesson of patience and perseverance in such cases of asphyxia of the new-born. Some authors, indeed, advocated the continuous efforts which he had employed in this case; but most physicians, he believed, were inclined to give up too readily. At all events, he had never read of a case where the child remained asphyxiated for such a long period as in this instance. An infant, he claimed, should not be regarded as dead because its heart had apparently ceased to beat, although this was too often done.

Dr. Palmer, of New York, on behalf of Dr. T. Gaillard Thomas, presented a very remarkable *dermoid cyst of the ovary* which he had removed the week before, and in which there was a large patch of very perfect skin and a considerable number of teeth implanted in a kind of superior maxilla.

Rest After Delivery—Treatment of Peritonitis, was the title of a paper read by Dr. R. Tauszky, of New York. He deprecated the practice of Dr. Goodell and other authorities in allowing the puerperal woman to get out of bed within a very short time after parturition. In his public and private gy-

næcological practice, he had frequently seen the bad effects of too early rising after delivery in abnormal conditions of the uterus, vagina, and ovaries. He then related a case recently terminating fatally in the Mount Sinai Hospital. At the autopsy the most marked evidences of pelvic cellulitis and peritonitis was found. The colon and rectum were immensely distended with fæcal matter, and the case showed the importance of attending to the bowels after delivery. In the treatment of pelvic or general peritonitis, he advised the methods practised in Vienna at the present time. In the first place, the cause, if known, should be removed. Fomentations should then be employed, but if there was very-high fever, cold applications should be used instead. If the bowels did not move naturally, no interference should be made so long as there was no tympanitis. When this occurred, however, warm enemata and oil were used. If there was very active inflammation, the local abstraction of blood by means of leeches should be resorted to, and he sometimes placed a dozen leeches on the abdomen. Opium, of course, was to be freely used. In chronic cases, fomentations and counter-irritation by tincture of iodine or by blisters were recommended. In some instances the ointment suppositories were also of great service. In acute peritonitis, when the patient was strong, digitalis acted most happily, and it was very efficient in bringing down the pulse.

Sponge-Tents and their Mode of Preparation.—Dr. R. Beverly Cole, of San Francisco, Cal., considered the sponge-tent better than all others, for the reason that none of the others could be made to remain *in situ*. The objections to those commonly kept in the shops were: *First*, that they were not of the proper size or shape, generally being altogether too large. *Second*, that they were apt to be made of a very coarse quality of sponge, and hence the dilatation could not be carried to the extent desired. *Third*, the sponge-tents, as usually prepared, gave a great deal of unnecessary pain on account of their coarseness and roughness. He made his own tents out of fine cup sponge, such as surgeons use. The sponge was dipped in melted wax, and then subjected to very great pressure (which could best be secured by a letter-press) which forced all the superfluous wax out of the sponge, and flattened it out to a thin cake. The sponge employed should be entirely free from all coral or other mineral impurities. After being pressed out in this way, the sponge could then be cut with the knife or scissors into any shape desired, care being taken to cut it in the direction of its long axis. In

many instances it was necessary to begin with a tent not larger than a knitting-needle. Before using, it should be provided with a thread by which it should be removed.

Dr. Pallen thought Dr. Cole's method of making sponge-tents was most ingenious; but he knew of nothing in all gynæcological practice that had caused so much evil as the sponge-tent. He was opposed to its use on account of the great dangers attending it, and because there were so few cases (except for purposes of dilatation, when other agents might be employed) in which it was applicable.

Dr. Battey then exhibited *a universal catheter*, which consisted of an ordinary soft-rubber catheter, to which was attached some rubber tubing sufficiently long to reach to the chamber-utensil on the floor, and made some remarks on its use.

SECTION ON OPHTHALMOLOGY, OTOTOLOGY AND LARYNGOLOGY.—Dr. Lawrence Turnbull, Philadelphia, Chairman; Dr. Eugene Smith, Detroit, Secretary.

June 1.—**Case of Syphilitic Stenosis of the Larynx with Fibrous Adhesive Bands of the True Vocal Cords; Tracheotomy; Rupture of Bands; and Cure of the Stenosis by General and Local Treatment**, was the title of a paper by Dr. W. H. Daly, of Pittsburgh, Pa. This was a case of supposed recurrent asthma. On general examination, the pomum Adami rises and falls $1\frac{3}{4}$ inches externally; inspiration and expiration are in the proportion of 1 to 3, the latter difficult. A syphilderm, like linea versicolor, is upon the abdomen; a gummatous node lies in the linea alba $2\frac{1}{2}$ inches below umbilicus, while an irregular ulcer $2\frac{1}{2}$ inches in diameter occupies the left scapular region. Long and high nodes reside upon the upper third of each tibia; clavicular surfaces are irregular, but not tender; patient is emaciated, and has a cachectic look. The difficulty in respiration is due to a valve-like obstruction in the throat; patient stoops forward, and compresses the chest, so as to get a sufficient quantity of air. Laryngoscopic examination reveals an arched, thickened and immovable epiglottis, a rima glottidis of $\frac{1}{3}$ the length of the vocal cords. The hyperplastic encroachment upon the calibre of the larynx is greatest to the right side of the thyroid box; it obliterates the ventricles and ventricular bands, and pushes against the vocal cords, which are agglutinated in a large part of their extent by a firmly organized plasma. The posterior commissure is obliterated also by the overlapping of the vocal cords; and all the anatomical landmarks of the laryngoscopic field are lost, either by infiltration, degenera-

tion, or displacement. The color of the extra-laryngeal parts is of the leaden hue so well pictured by Türk in his atlas, while that of the intra-laryngeal walls is Indian red. An anti-syphilitic treatment is instituted. Tracheotomy performed three days later, without an anæsthetic, with the loss of less than half an ounce of blood. Three days later, the increasing stenosis and perichondritis have made the passage air-tight. A gradual recession in the size of the growth continues almost without intermission for six weeks. The fibrous bands are ruptured with a laryngeal bougie at repeated sittings, and the vocal cords finally come into view. The patient, after the tracheotomy, is put upon a $\frac{1}{20}$ gr. of bichloride of mercury and iodide of potassium, which, after two months' administration, is abandoned. Six months after the operation, in April, patient is engaged in continued manual labor, breathing through the natural straits.

Lesions of the Larynx in Pulmonary Phthisis.—Dr. Carl Seiler, of Philadelphia, finds that ulcerative processes begin in the glands, and not in the mucous membrane, whence come the serrated edges of the epiglottis. The depots or foci of pus contain leucocytes, while giant cells have been found very rarely. He thinks that gastric symptoms are found as often as laryngeal, and that it is an error to attribute to the larynx such pathological changes, as determine its separate location as a phthisical habitat.

Tumors of the Lachrymal Gland—Their Pathology and Treatment, with Demonstrations.—Dr. H. Knapp's (of New York) remarks were based upon lachrymal gland tumors in his practice, the first of which was in a lady of 26 years of age, who presented a tumor filling the upper and outer portions of the orbit, and pushing forward the lid. Enucleation found involvement of optic nerve.

CASE II.—A man 36 years of age; growth was recurrent, and was removed. It reappeared in two months, when Dr. Knapp found a protrusion forward of 11 mm. Eye was pushed downward and inward. A preliminary diagnostic incision was made, and the tumor was found to consist largely of epithelial cells. A semi-circular incision under the brow was made; the tumor was found attached to the periosteum. Superior and external recti were divided, as well as the optic nerve. Its removal was slowly but easily accomplished. A silver drainage-tube was introduced, and repair was healthy. In two days an ophthalmoscopic examination was made, when it was found that hæmophthalmos existed. The macula lutea was reddened, and the retinal

veins were large; the latter finally atrophied and became white tendinous cords.

CASE III was that of a young man with a story of exophthalmos for one and a half months; eye was nodular to the touch, and pushed downward and toward the nose. Fundus, as in Case II, was congested, and there was atrophy of the yellow spot. $V.=\frac{15}{200}$. Removal was made this last spring by a semi-circular incision along the brow. This was followed by a protrusion of fat; the tumor was found thoroughly encapsulated; sutures were placed in the walls of the incision, and healing was by first intention. Vision improved to $\frac{20}{200}$.

Very few lachrymal tumors have been removed. These are adenomatous; yet all parts of these tumors do not show similar properties. All were glandular; there was considerable myxomatous tissue, and epithelial cells were crowded together in a polygonal form. The first tumor, of five years' growth, was adenomatous throughout; the second was glandular; the third, cancerous, with lymphatics leading from the alveoli. There is a very prominent proliferation of epithelial cells. Dr. Knapp thinks all began as adenomatous growths; then in some parts there was hypertrophy of tissue, with nodes and knots. This is like alveolar cancer. In all there was much myxomatous tissue, giving the general characters of myxo-adenoma.

Dr. Charles J. Kip, of Newark, N. J., showed two photographs of a woman in advanced years, taken before and after the operation of removal of an orbital tumor of the left side. Exophthalmos was downward and inward nearly one inch. Dr. Kip made an incision along the supra-orbital wall, and removed the growth; without antiseptic treatment and without subsequent secretion, perfect union was obtained. The tumor was an ordinary adenoma, consisting of cartilage-cells, epithelial cells, and tubes containing gelatinous masses. This case revealed atrophy of the optic nerve and pigment degeneration in retina.

The Training of Idiotic Eyes was the title of a paper read by Dr. Edouard Seguin. An exaggerated neurasthenia enters largely into nystagmic cases, influencing both the motility of the ocular muscles and the fixation of the macula lutea. The first point in the physiological education of the eyes is *indication* with the index finger, bringing thus into play accommodation and its range. A curious but constant phenomenon is that an idiot may be told to follow the finger, which he does with his body and head, but not with the eyes.

Whether the hand or the eye is the proper organ to train first is, perhaps, questionable. In this category falls line-tracing, as in drawing on porcelain, oiled-paper, parchment, etc.

June 2.—**Therapeutic Value of the Galvano-Cautery in Diseases of the Naso-Pharynx**, was the title of another paper by Dr. W. H. Daly. He elucidated the application of the galvano-cautery in destruction of the turbinated bones, granulation-tissue, and adenoid growths. Among possible accidents are erysipelas, destruction of the septum nasi, eschar of the mouth of the Eustachian tube, with consequent otitis media purulenta and perforation of the membrana tympani. He has used the cautery extensively in these cavities with success. Among subjective and objective symptoms following its use are pain in the eye of the same side when the cautery is applied to the anterior ends of the turbinated bones, pain in the opposite ear when the cautery is applied farther back, etc. The more posterior the application the more insensitive the parts. Some patients exhibit symptoms of approaching chill and fever after the application of the galvano-cautery. Dr. Daly doubts its general acceptance on account of its expense and capricious behavior; its application, however, is attended with less pain and more surety than the usual caustics, nitrate of silver, caustic potash, etc.

Determination and Correction of Astigmatism was the subject of some remarks by Dr. H. Knapp. Refractions from asymmetrical surfaces, and Sturm's focal intervals were detailed on the blackboard. Intermediate surfaces between the principal meridians have no foci. Suppose these surfaces are applied to the cornea; as these surfaces are rotated around an antero-posterior diameter, a parabolic ellipsoid is formed, the normals of whose principal meridians (vertical and horizontal) form regular surfaces, and have constant foci; but the intermediate meridians furnish in rotation no regular planes; this irregularity of planes of the intermediate meridians makes the location of focal points impossible. An ellipsoidal spheroid was introduced with vertical, horizontal, and intermediate meridians represented by pins, by which it was easy to see that the last named planes were irregular and "askew" (K). Sturm's model makes the demonstration of ametropia possible, but not that of astigmatism. The model of Helmholtz renders the demonstration of astigmatism possible, as may be seen by the different adjustments of the safety pins upon the strings. The determination of astigmatism was possible by the direct application of these principles. Dr.

Knapp uses Snellen's test-types, first applying spherical glasses and then correcting the refinements of refraction by the successive application of weak cylindrical glasses, as in the ordinary way. Schweigger and Schöler, of Berlin, determine astigmatism with a Stokes' lens. Schöler uses also a double disked ophthalmoscope, one disk containing spherical, the other cylindrical lenses, and is not practical, nor is the Stokes' lens. It is, however, used by Horner, of Zurich, one of the most practical European oculists. The old principle of endeavoring to see the smallest retinal vessels in the horizontal images is the most correct one to follow. Dr. Knapp introduced a model illustrating three points of retinal focalization at different positions on the same vertical meridian. A vertical line, divided into three colored threads, gives dispersion lines, and final dispersion images in the same vertical direction, but these images superposed are over the other. Dr. Knapp deduces from this the use of simple spherical lenses in the ophthalmoscopic disk, as the most feasible. A case was detailed of compound hyperopic astigmatism in the right eye, and of simple hyperopic astigmatism in the left eye of the same patient, which was diagnosed within $\frac{1}{72}$ Eng. or 0.5 dioptry. Dr. Knapp does not correct a power of astigmatism less than $\frac{1}{72}$, as the physiological astigmatism is from $\frac{1}{80}$ to $\frac{1}{60}$. The physics of astigmatism as brought out years ago by Airy and Young, and studied latterly by Helmholtz and Knapp, have not changed. To correct spherical aberration in astigmatic eyes by a system of glasses, constructed after proper scientific and mechanical laws, is the aim of the oculist.

Dr. Smith, the Secretary, presented an enucleated eye, in which there was a *bony degeneration of the lens*, or an osseous proliferation proceeding from the choroid. The eye was shrunken from preservation in spirits.

Introduction of Liquids into Eustachian Tube and Middle Ear, was the title of a paper by Dr. S. S. Jones, of Chicago. The attempts of Sir Astley Cooper, in 1800, by puncturing the membrane, and pushing air through the external meatus and Eustachian tube, and, later, of Horner, of Philadelphia, of Hinton and Allen, of London, induced the author to resort to one or the other means of introduction into the tube—that is, by the nares or external ear. He has used liquids in this way for nine years, and is convinced of its advantage in dry, chronic, non-suppurative inflammation of the middle ear. Dr. Jones reverses Horner's method of procedure, and introduces liquids through the Eustachian catheter into the tube.

The tube is thus more easily dilated, and will finally better admit air. He has abandoned bougies as dilators. He argues from the benefit derived by proper applications to the post-nasal cavity and pharyngeal vault a similar benefit from the local contact of fluids of proper temperature to the Eustachian tube or cavity of the middle ear. The bad influence of sea-bathing upon the middle ear has been over-estimated. As naval surgeon in the war of 1861-65, he noticed less acute inflammation of the middle ear when the temperature allowed sea-bathing on the part of the sailors, than when the thermometer was so low as to prevent it. Dr. Jones advised slightly saline tubal injections on account of their better tolerance than pure water, or weak solutions of borax, chlorate, of potash, etc. Its temperature showed 60° at blood heat; no force should be used, and the quantity should be regulated by the amount of effect desired. The comfort of the patient, and the subsequent improvement in hearing operate as warrants for the continuance of the practice.

Dr. Ritchey, of Washington, D. C., finds great advantage in the use of warm injections into the tube. He first uses warm air, and later warm solutions. He has not found a single acute inflammatory result. A chill has preceded the inflammatory symptoms, showing changes in the general circulation.

Dr. Knapp's experience is entirely opposite to that of Dr. Jones.

Dr. J. J. Chisolm, of Baltimore, agrees with the author, provided the injections are weak and warm, and uses muriate of ammonia, bicarbonate of soda, or any of the milder alkalies.

Dr. Noyes, of Detroit, corroborated the benefits of judicious tubal injections: he details a case in which a bulging membrana-tympani is punctured, with an exit of pus; the Eustachian way is then washed out with warm water successfully. A later case was unsuccessful, and Dr. Noyes has since abandoned the use of intra-tubal injections.

Dr. Reynolds, of Louisville, Ky., would limit such local medication to cases of drum-membrane sloughing.

Dr. Pomeroy, of New York, opposed the injection of all fluids on account of inflammatory results in the middle ear. In chronic cases of proliferating catarrh, he treats the tube alone and not the tympanic cavity. There is danger of making too strong applications to the mouth of the Eustachian tube; these must be sparingly and moderately used. Retention of foreign fluids in the tympanic cavity is a danger al-

ways to be thought of—as well as the reaction upon the tubal walls themselves.

Dr. Chisolm, in an experience of over 1,000 injections into the tube, has not found more than five or six cases of resulting inflammation. He injects the post-nares in the ordinary way, and drives the residual fluid into the tube by air-inflation.

Dr. Ritchey thinks that Dr. Jones' method of injecting through the catheter is preferable, because it is more under control, and the quantity of entering fluid can be accurately estimated. He has never seen any bad results, having confined his medication to mild alkaline solutions.

Dr. Holcombe, of New York, has long since abandoned such injections. Injections of nitrate of silver, and the salts of iron, should be abandoned. He still uses iodized vapors, with impunity. In 1852, he first saw Triquet inject air into the Eustachian tube.

In recapitulating the points adduced, Dr. Jones, the author, thinks it not only possible to enter the middle ear by the tubal way, but also practicable. He would not use such strong agents as solutions of the metallic astringent. Here enters the question of possible advantage of an induced attack of non-suppurative catarrh. While it is not a risk to be taken *ad voluntatem*, it has, nevertheless, certain advantages.

Wickersheimer's Preservative Fluid for Animal Substances, was the title of a paper by Dr. E. Gruening, of New York. The Prussian Government, a few months ago, bought and published the following formula: To 3,000 parts of boiling water put 100 parts of alum, 25 parts of common salt, 12 parts of saltpetre, 60 parts of carb. of potash, 10 parts of arsenious acid. Cool and filter, and add to ten parts of this solution, 4 parts of glycerine, and 1 part of methylic alcohol. In the *Centralblatt f. dei med. Wissenschaften* for January, 1880, Dr. Boersicke states that the formula published by the Russian Government contains two errors. He obtained a different formula directly from Wickersheimer, in which, instead of 10 parts of arsenious acid and 1 part of methylic alcohol, there should be 20 parts of the acid and 4 parts of methylic alcohol. The government formula is slightly opalescent, while that of Boersicke is perfectly clear. The first preserves the refractive media of the eye, while the second does not. A small, soft eye, which had lain three months in the Government fluid, shows the same depth of anterior chamber, a clear cornea, and an unchanged blue iris. The glioma retinae, for which the eye was removed, can still be

diagnosed by the naked eye. An albinotic rabbit's eye having laid in the same formula the same length of time, shows the media clear, and gives the pink reflex. With the Boer-sicke mixture, preservation is less perfect; the lens becomes opaque in a few hours, and the cornea dim after a few days, as if it had been placed in absolute alcohol.

June 3.—**Color-Blindness.**—Dr. B. Joy Jeffries, of Boston, spoke on this subject. His methods are used in the marine service of the United States, and by certain railroad companies. In examinations of 1,300 persons, about 4 per cent. of males and only 13 females have been found color-blind. A chart of worsted squares was introduced, which might be of practical service to a naval surgeon. Pflüger's method consists of detecting the complementary colors through tissue-paper. Donders has proposed a means by which at a distance of three metres a quantitative examination of color upon a black ground can be measured. Already Connecticut has a law demanding such examinations by railway officials. There is also such a national law in Belgium. Dr. Jeffries has already tested 185 members of the American Medical Association, and found five color-blind. He is unable to answer why so few females are color-blind.

Variability of the Human Eye.—Dr. David Hunt, of Boston, read a paper on this subject. Myopia has caused most interest on the part of specialists, but hyperopia and astigmatism abound in countries where myopia prevails. The eye of civilized man has a tendency to vary from a nearly normal standard, such as characterizes most savage people and the domesticated animals. Myopia has been generally considered as the direct result of near vision; in the same way hyperopia has been treated of as the direct product of a relatively greater exercise of the eye in distant vision, while the cause of astigmatism has received but partial explanation. In attempting to apply the hypotheses founded upon the above considerations, it will be seen that they fail; for instance, they do not explain in any manner its relation to the vast amount of myopia and hyperopia in the same nations, as among the Germans and Italians. In studying the embryology of the eye, its formation from a simple bud of brain-tissue, suggests the possibility that in the phenomena of the variability of the human eye we have an instance, not of *direct* variation, as has been hitherto supposed, but rather an illustration of correlated variation; that the eye varies not directly as its functions varies, but that, as a bud of brain-tissue, it partakes of the inherited stimulus to increased and

varied growth, which we know affects just that portion of the brain from which the primary eye vesicle is produced. We see the direct result of this stimulus to increased cerebral development in the greater frontal development which civilization has produced; and, just as the growth of brain-tissue has shaped the skull, so the increased growth of retina, while it is yet a simple bud of brain-tissue, influences the shape of the sclerotic, which is to be formed from the connective tissue immediately surrounding the embryonic retina. Given this variability, then causes—which we cannot believe produce the variations, since they do not do so in animals—may modify and increase the variations so caused. The great trigeminus ganglion, the only mass of nerve-matter excepting the brain in the head of young embryos, may furnish a clue to this peculiar weakness of the temporal half of the posterior portion of the sclerotic, viz., staphyloma posticum. At an early stage of development the ganglion is situated a short distance behind and back of the temporal half of the globe. Any increase of the ganglion, such as accompanies the increased growth of the brain in civilized man, will cause the ganglion to encroach upon the layer of connective tissue, from which the posterior portion of the temporal half of the sclerotic is to be formed; and, as the ganglion in its development breaks up into the separate ganglia, and as these in turn undergo the relative decrease in bulk which they pass through before they are enclosed in the cartilage which is to form the skull, the curve, which this portion of the sclerotic forms, must be directly proportioned to the primary increase of the ganglion; and other things being equal, the sclerotic will be thinner and looser in texture, as the connective tissue lying between the eye and the ganglion is encroached upon by their increased growth. The trigeminus ganglion is situated at the base of the first branchial arch, and, as it influences the eye, so I believe its increase influences the development of the arch, and thus accounts for the decrease of prognathism characteristic of civilized nations. It is difficult for us in America to believe that the marked change which occurs in the maxillary protuberance of the descendants of our Celtic and other emigrants, is caused by changes in diet and thus of function of the jaws, as Darwin and Spencer have supposed. We should expect, if change of function had any result beyond changing the development of the muscles concerned in mastication and the bony ridges, which mark their insertion, that the prognathism would increase; since it is surely the case that many emigrants have a diet requiring

less mastication, and in America begin upon diet consisting more of animal food and requiring more; that an increased strain upon the nervous system is made in changing from a peasant to a citizen, I think no one will deny.

Probable Cause of some Forms of Globus Hystericus, was the title of a paper by Dr. Richard C. Brandeis, of New York. The author dwelt upon the fact that this affection was as frequent in females of the lower as in those of the higher classes. The commonest form is attended by a sensation of a ball or lump in the throat. The larynx is most commonly the seat of the distressing sensation, but sometimes the pharynx and œsophagus are also affected; when this is the case, the patient may be unable to swallow food or drink. In the more marked cases every ingestion is followed by a regurgitation, and this is attended with a spasm of the glottis and dyspnœa, owing to the irritation of the peripheric sensitive nerve-fibres of the pharynx, which is reflected to the pneumogastric nerve at its origin, the floor of the fourth ventricle, and is then communicated to the gastric and recurrent laryngeal branches of this nerve. Uterine and spinal affections are also frequent causes of this chain of symptoms. In some cases, however, no neural cause can be discovered, and every form of constitutional treatment will fail. He has observed many cases in which all the symptoms of globus hystericus may be attributed to a local cause—irritation of the epiglottis. This is generally due to an enlargement of the papillæ circumvallatæ, situated at the base of the tongue, which may assume such a size that the movements of the epiglottis are interfered with, owing to the fact that it is firmly held by the enlarged glands. If the epiglottis is extricated from its confinement, these symptoms will disappear, but may return if the enlarged papillæ are not destroyed. This may be done by means of caustic applications, the knife, or the galvano-cautery, care being taken that the delicate epiglottis itself is not interfered with. In no case in which the papillæ were removed was there a return of the symptoms.

Dr. E. Gruening, of New York, exhibited a **Magnet for the Removal of Particles of Steel and Iron from the Interior of the Eye**. McCuen first published a notice of removal of metallic bodies in 1874, with a magnet; but Hirschberg first actually employed a magnet for such purposes. Hirschberg's apparatus was a cylinder, the ends of which were drawn out and connected with wires that formed its positive and negative poles. The amount of magnetic polarity was, however, in-

sufficient, and, in addition, a generating apparatus was demanded. Dr. G's idea was to have a permanent battery. His instrument consists of an armature of six parallel cylinders, magnetized, one end of the bundle of cylinders being furnished with a tapering needle, about 22 mm. long. In his first experiments, upon pigs' eyes, Dr. G. broke all the needles. Two magnets, or "magazines," were presented, the larger being less highly magnetized than the smaller one. The latter carries the weight of two steel keys and ring, about 28 grammes. The better instrument was better made by Reynders, of New York.

Perichondritis Auriculæ was the subject of remarks, with a case, by Dr. H. Knapp. It is very rarely seen. Began in cartilaginous portion of meatus, whence it spread over the entire auricle, with the exception of the lobule. No pus was found at any time. The case was relieved in about three months, since which time there has been marked atrophy of the auricle.

Dr. Pooley said that he had also seen a case of perichondritis in which he had applied continuous pressure, and thus had checked the progress of the disease.

Dr. McKay, of Wilmington, Del., had also had a case in which a cure was effected by means of applications of nitric acid.

Dr. Shakespeare, of Philadelphia, was observing a case in which there was a marked formation of pus.

Detection of the Location of Pieces of Steel and Iron in the Eye, by the Indication of a Magnetic Needle.—Dr. T. R. Pooley, of New York, spoke of the meagre literature of this department of ocular surgery. Smee, of London, in 1844, was the first to publish any authentic results of the detection of metallic substances in the human body by means of magnetism. In April, 1880, Prof. J. H. Pooley, of Columbus, Ohio, published kindred experiments on the human body with undoubted success. Ten experiments were instituted with pieces of watch-springs, iron and steel wire, and cast steel, of different weights and shapes. A table was incorporated, detailing also the distance at which a magnetic needle of 41 mm. in length was deflected toward the different substances, some of which were non-magnetized, others rendered magnetic by induction, while others had been in contact with a magnet. The substance weighed from .004 to .136 gramme, and, while non-magnetic, caused deflection at distances varying from 3 to 12 mm. The results depended on the size of the body, as well as on its position in the eye.

The first desideratum was to render the metallic body a magnet. With cast steel the deflection was the greatest. This detectability of magnetized bodies having been proved, Dr. P. began experimenting with freshly enucleated eyes of pigs and sheep. He used highly magnetized sewing-needles, and double-pointed needles with eye at the centre. Experiment No. 3 was that of a cystotome entered behind the sclero-corneal margin and passed deep into the vitreous. The needle was deflected by it in every instance. In experiment No. 4 a horse-shoe magnet was passed *near*, though not in contact with, the spot from which the cystotome had been withdrawn, and the needle was deflected as before. In experiment No. 9 a piece of watch-spring was introduced just behind the sclero-corneal margin of an eye lying upon the table, the cornea looking upward. The needle indicated its location 6 mm. below its point of entrance, where, by an incision, it was found. The eye was then turned over, when the needle was deflected toward a new point. Upon cutting down, the body was found in the vitreous, partly covering the papilla and partly lying on the retina. In experiments Nos. 12, 13 and 14, a living rabbit's eye was used, and several hours after the introduction of a bit of steel wire the vitreous was turbid, the iris dull, conjunctiva chemotic, and purulent choroiditis had set in. The needle deflected as before. In all of them it was impossible to see the metallic body, on account of the turbidity of the vitreous, and in none was there a failure of the needle to be deflected toward its habitat. Pagenstecher, of Wiesbaden, first called attention to the rapid formation of a dense exudation about a foreign body. Dr. Pooley saw this occur in the three experiments on rabbits, and found the magnet almost powerless in the removal of the body.

The author's conclusions were as follows:

I. That a steel or iron body in the eye may be detected by a suspended magnet when the body lies near its surface. II. The presence and position of such a foreign body may most surely be found by making it a magnet by induction, and then testing for it by a minute suspended magnet. III. The intensity of deflection of the needle is proportionate to the depth of the body. IV. Changes of deflection of the needle indicate changes of position in the foreign body.

Dr. Gruening asked how the magnet was suspended, and Dr. P. answered that the suspension was by a thin fibre of silk. In all the laboratory experiments the magnet was held at right angles over the upturned eye by a rectangular sup-

port attached to a table. Dr. G. has lately instituted experiments, in which his magnetic needle was suspended by cocoon silk, the needle pointing downward in mid-air within a glass box. He was able to overcome the terrestrial polarity, so that the north pole became the south pole of his magnet, but was unable to satisfy his thesis as to the detection of a metallic body.

Dr. Knapp had had two opportunities of removing foreign bodies from the eye by the magnet, in one of which he was successful; in the other not. In the second eye, which suffered from suppurative iridochoroiditis with hypopion to the height of 3 mm., three attempts being made with the magnet introduced between the internal and inferior recti, and directed in every direction across the globe, failed to "get the click" and deliver the foreign body; the latter, however, was found in the wound later, and extracted by forceps.

Dr. Pooley emphasized the scientific necessity of rendering the foreign body a magnet by induction, whereby Gruening's experiments had failed.

Dr. S. D. Risley, of Philadelphia, read a paper noting *various ear-troubles*, one of which was a case of *mastoid inflammation, with meningeal complications*. Trephining of the mastoid and good hygiene saved the patient's life. Two cases of *inspissated cerumen*, giving, in one, symptoms of meningeal compression, in the other those of locomotor ataxy, were read. Other cases were detailed—all examples of reflex irritation.

Primary Conjunctival Lupus.—Dr. E. S. Peck, of New York, presented a case of this disease which had been under observation fourteen months. The present ulcer was the fourth of a group of successive ulcers, all confined to the conjunctiva and the integument in the immediate vicinity. The first ulcer was situated upon the outer portion of the conjunctiva of the upper lid; the second upon its middle portion; the third was a group of ulcers at the inner canthus, and had an anatomical division into three ulcers. The ulcerated surface had not, as yet, invaded the ocular conjunctiva, and vision was perfect. The treatment had been mainly nitric acid, as a caustic, and anti-scrofulous formulæ. The ulcer was purely lupoid and a scrofuloderma. Its exceeding rarity was shown by the fact that of a summary of 167,318 eye-diseases, tabulated within a few years in the New York Eye Hospital, only seventeen cases of lupus of the lid had been recorded.

SECTION ON DISEASES OF CHILDREN.—*June 2.*—This was a new temporary Section, with an attendance of about forty

members. Dr. S. C. Busey, Washington, D. C., was elected Chairman; Dr. Frank Woodbury, Philadelphia, Secretary.

Dr. A. Jacobi, of New York, delivered an address presenting the *Claims of Pediatric Medicine*, concluding with a recommendation that this Section be made a permanent part of the Organization. Unanimously approved.

Bright's Disease in Children Caused by Malaria.—Dr. S. C. Busey, by invitation, read a paper on this subject, in which he gave the clinical reports of three cases of children suffering from malarial cachexia, who subsequently presented all the appearances of marked renal disease. In these cases life is usually terminated by uræmia, pulmonary œdema, or cardiac insufficiency. Nutritious and easily digested food, and chalybeates constitute an essential part of the treatment; the citrate of iron and quinia is generally preferred in these cases. Digitalis (the tincture, or in the form of digitalin), cathartics such as elaterium and compound jalap powder, are especially indicated. In dropsy, Eberle's formula (without the tartar emetic) he had found very valuable. Diuretics are indispensable in proper cases, but unreliable in many. Diaphoresis by the hot-air bath, or by pilocarpine is a useful adjunct to the treatment: and multiple puncture for the relief of œdema, was much lauded as a means of relief.

Dr. Schauffler, of St. Louis, did not see the direct connection between malaria and Bright's disease, and thought that the proposition was not proven.

Dr. Busey disavowed supporting the view that there was any direct relationship between renal disease and malaria; but if the latter be neglected, it may lead to organic changes in the tissues, of which nephritis is a sequel.

Dr. Jacobi suggested that in such cases the renal disorder might be caused in two ways; first, lowering of circulation leading to albuminuria, though this is not inflammation; a spontaneous thrombosis may, however, occur from debility of the circulation under such circumstances, which might be the centre for such inflammation. Malaria leads to extensive destruction of red-blood cells, and the pigment circulating in the blood leads to embolism in other organs, and may give rise to nephritis. There are some cases on record by Griesinger and Rosenstein in which nephritis was due to malaria.

Dr. James L. Green, of Elizabeth, N. J., reported a case of **Congenital Multiple Lymphectasia**, in a male, born at eight months of utero-gestation, who presented at birth a large cystic tumor upon the posterior portion of the pelvis. In the abdominal region in front, and at the right side, were

two other cysts which had no connection with each other, or with the posterior tumor. Two days later the fluctuating tumor was aspirated and 120 grammes of clear, straw-colored fluid removed, specific gravity, 1007, slightly saline, and albuminous (about $\frac{1}{3}$) on boiling; nothing but a few blood corpuscles were observed under the microscope. In ten days the sac refilled to its former size. Dr. A. Jacobi now saw the case and pronounced it one of lymph-angiectasis, and recommended removal of a small portion of the fluid, and injection of a small amount of iodine. On two subsequent occasions this operation was repeated, very little disturbance being produced; the slight uneasiness of the child passed away in two hours. This tumor has considerably diminished in size, but the tumors in front, upon which no treatment was attempted, have increased, and a small one has been developed upon the left hip opposite the acetabulum.

Dr. Busey said that a lymph tumor may be distinguished from varicose veins by the multiple character of the former, and by the isolation of the latter. If the vascular connection of the tumor can be reached, so that they may be obliterated, a good result may be hoped for. If treatment is neglected, the patient generally dies from phthisis after puberty.

Dr. Jacobi said that since the tumor is now smaller than at the beginning, the tincture of iodine injections should be continued, and more frequently repeated, being careful, however, not to excite too much febrile reaction in the child. He distinguished two forms, one in connection with lymph trunks, and the other isolated. In the former, the injection of iodine is the best treatment; the latter kind may be extirpated, and he had twice dissected out such isolated tumors in adults. A variety of methods of treatment by ablation and actual cautery, pressure, slow drainage, and other plans, were suggested.

Dr. Schaffler reported a successful case of excision of two such lymph-tumors, in the practice of Dr. Taylor, of Kansas City. The child recovered from the operation, but subsequently a hard brawny growth appeared, like elephantiasis, which the same surgeon removed by dissection. The patient died on the second day without obvious cause, having completely rallied from the operation of the day before.

June 3.—**Congenital Atrophy of Liver.**—Dr. A. Jacobi read the history of a case. The liver was reduced to one-tenth or one-twelfth of its normal size. The microscopic examination showed scarcely anything but interstitial tissue; he believed it to have been a true case of interstitial hepatitis

occurring in the infant. The capsule of Glisson was greatly thickened, giving the appearance of chronic peri-hepatitis. A history of the child did not give any positive evidence of syphilis, but he believed the case to have been one of this character. Peri-hepatitis has been regarded as an adult disease until recently, when several cases have been reported by the German pathologists as occurring in children. As a rule, syphilitic disease gives rise to enlargement of the liver, which, according to Murchison, may be of two kinds: first, gummatous deposits; and, secondly, diffuse syphilomatous degeneration, which leads generally to atrophy.

Dr. Jacobi also reported a case of syphilitic liver which had recovered—the only infant that he had known to survive the disease. The child is now a year old, and appears to be healthy. In the treatment, where the evidence of syphilis appears early, a prompt mercurial impression is required. He had followed Lewin's plan of giving the bichloride hypodermically, with excellent results. The salt was dissolved in water and filtered before using. In other cases, where such a rapid effect is not needed, he had followed the usual plan of mercurial inunction.

Dr. J. B. Reynolds, of New York, regarded the case as having no other explanation than had been given. In the specimen, however, he saw no evidence of syphilitic lesion. He preferred to medicate the child through the mother's milk. His hospital colleagues had tried the hypodermic injections, but had failed; but by any method of treatment, except in those where the aid of maternal medication was invoked, no good results had been observed. Where syphilitic skin affections, such as furuncles, etc., are very early and very marked, he had learned to hope for but little in the way of treatment. When syphilis appeared from the fifth to eighth week, a fair chance of recovery was present.

Dr. H. A. Hopper, of New Jersey, had not used mercury hypodermically, but had employed inunctions and nursing from a mother who was under anti-syphilitic treatment. If the exfoliation of skin and nails occur before five days, the infants almost invariably die, but if after five days, good results might be hoped for.

Dr. E. A. Curry, of New Jersey, inquired if the hypodermic injections of mercury had caused anæmia in these cases? It was found to have this effect when he was at the Edinburgh school.

Dr. Jacobi said that he used a mild solution of the bichloride (two to four grains to the ounce) for injections. Where

inunctions are resorted to, in cases where the emergency is not so pressing, the oleate may be used for this purpose, containing six per cent. of mercury, but the ordinary blue ointment is also very efficient.

Dr. Curry reported a case of a *synovitis in a so-called scrofulous child*, to which he gave twelve one-grain powders of gray powder—one to be taken each night. After taking these powders, the child had improved so much that the prescription was refilled without the authority of the physician. He was called again at the end of the second series of powders; the child was anæmic, emaciated and cachectic, but afterwards improved, and the knee got entirely well.

Dr. Jacobi said that the effect of mercury on specific disorders was so great, that in such cases we are obliged to use it. In small doses, long continued, its action is plastic rather than antiplastic, as it is in larger doses. Dr. Keys has pointed out that in syphilis, the small doses increase the globular richness of the blood. Mercury has formerly been given indiscriminately for almost every complaint, and doubtless did a great deal of harm; but, properly administered, is a very valuable agent in the treatment of just such cases as the one described in his paper.

Dr. Hooper said that the reason why a change had occurred in medical practice, was, that the advance in our knowledge of pathology and the effects of medicines, has led physicians to be sure that the indications for its use were present before ordering it.

Dr. Jacobi reported **A Case of Suprapubic Lithotomy** in a child six years of age which had suffered with the symptoms of stone in the bladder for a year. The operation was performed without difficulty, under chloroform, and a medium-sized phosphatic stone removed. This was followed by persistent suppuration, which was more than would be expected simply from a mucous membrane. The case had not yet entirely recovered. Dr. Jacobi referred to recent observations upon sub-mucous gastric abscess, and inquired whether a similar condition could not exist in the bladder. These accidents of peritonitis and extensive suppuration, as a consequence of epi-cystotomy, may prove to be a serious bar to a method of operation for lithotomy that otherwise has much to commend it. It may be that the preliminary distention of the bladder required may have injurious results in a bladder which is contracted, and the subject of concentric hypertrophy and chronic irritation from the presence of the stone. If the bladder be much diseased, the forced injection may of

itself produce serious consequences. In the case reported, no injury or irritation of the bladder was caused in operating, beyond the simple incision.

Dr. Jacobi also presented a specimen taken from a child, who was admitted into the hospital at the same time as the preceding case, and also exhibited the rational signs of stone in the bladder. In this case, operation was delayed on account of some fever present in another case. This boy subsequently died of meningitis without any operation having been attempted. The bladder, very much contracted and hypertrophied and with its mucous membrane thickened, inflamed, and ulcerated, was found closely embracing a stone as large as a small pigeon's egg. This specimen of diseased bladder, taken in conjunction with the preceding case, showed very clearly the risks of the operation. The kidneys were quite healthy. The urine was alkaline, phosphatic, and contained ropy mucus and pus.

Dr. Jacobi referred to the large doses of opium which had been given during the attack of peritonitis, which, commencing with five drops of tincture of opium, had been gradually increased until twenty drops had been administered every hour, which would generally be a very large dose for a boy six years of age. He cited an instance in which a woman suffering from peritonitis, in the same hospital, had taken fifteen hundred grains of morphine in the course of twenty-five days, or, on an average, a drachm a day. Upon one occasion it was found necessary, in order to relieve her pain, to give her ninety grains of the sulphate of morphia hypodermically inside of twenty-four hours. Strange to say, these cases rarely contract the opium-habit. This woman recovered.

In answer to a question from Dr. E. W. Schauffler, of St. Louis, as to whether he believed that the bladder presented could have been distended so as to rise above the pubes, as required in the operation of suprapubic lithotomy, Dr. Jacobi replied that he had no doubt that it could have been so distended as to permit the operation. In reply to a question from Dr. F. Woodbury, he said that the tincture of opium used was of proper strength, as it was what was commonly used in the hospital, and he knew that it affected other cases in the ordinary doses.

The Chairman, Dr. S. C. Busey, announced that the necessary by-law creating a *permanent section on diseases of children* had been adopted, and that, at the next meeting of the Association at Richmond, the Section will be duly provided with officers and papers.

SECTION ON MEDICAL JURISPRUDENCE, CHEMISTRY, PSYCHOLOGY, STATE MEDICINE AND PUBLIC HYGIENE—Dr. James F. Hibbard, Richmond, Ind., Chairman; Dr. Thos. F. Wood, Wilmington, N. C., Secretary.

June 1.—**Death-rate of the Rich and the Poor** was the title of a paper by Dr. C. R. Drysdale, of London, England, which was read by the Secretary in the absence of the author. The death-rate was higher among the poor, because of the low wages which they receive. In countries where the people were prosperous, as in New Zealand and Australia, the mortality was not so great. Alcohol had been cited as one of the frequent causes of high death-rates. This the author sought to disprove by means of various statistics. As to the mortality of trades, it was not the trade of itself that caused the increased number of deaths, but the small amount of wages that was given, insufficient for persons engaged in them to provide the necessaries of life. If we wished to lower the death-rate, the birth-rate must be also lessened.

National Board of Health was the title of a paper by Dr. J. S. Billings, U. S. A., in which a summary of the formation of that Board was given, together with the work done by it, also its objects and purposes. Dr. Billings recommended that the Chairman should appoint a Committee from the Section to report to the Association on several matters looking toward co-operation with the National Board. The Chairman appointed Drs. A. N. Bell, of Garden City, N. Y., Thos. Antisell, of Washington, D. C., and E. M. Moore, of Rochester, N. Y.

The Relations of the Medical and Legal Professions to Criminal Abortion.—A paper on this subject was read by Dr. E. H. Parker, of Poughkeepsie, N. Y., based on three cases of criminal abortion, in two of which the parties implicated escaped punishment; in the third, the physician who operated was convicted, but pardoned before completing one-half of the term for which he was sentenced. The main object of the paper was to rid the community of the prevalent idea that abortion was not a grave offence. He advocated that the full penalty of the law should be inflicted. In conclusion, the following resolutions were offered:

“1. Abortion should never be brought on by the use of medicinal or instrumental means, unless necessary to the safety of the mother, in consequence of pathological complications.

“2. The destruction of the fœtus in utero, for any other reasons properly ranks, with other forms of murder.

“ 3. Abortion produced artificially always places the mother's life in jeopardy, and thus becomes a double crime.

“ 4. The severe punishment of the operator, whenever possible, without any probability of executive clemency, is due, in justice to the honorable members of the profession, and yet more to the community at large.”

Drs. Antisell, of Washington, D. C.; Stevenson, of Poughkeepsie, N. Y.; Edwards, of West Virginia, all held that the law was already sufficiently explicit on the subject. On motion of Dr. J. M. Jones, of Washington, D. C., the resolutions were laid upon the table, and the paper was referred to the Association, with a request for its publication.

The next paper, on *Unsanitary Engineering and Architecture*, was read by the author, Dr. A. N. Bell, of Garden City, N. Y. Details were given of the defective sanitary arrangements of various public buildings, and the means of remedying it.

June 2.—The proceedings were opened by the reading of some resolutions by Dr. A. Clendennin, of Fort Lee, N. J., which had been passed by the Association. They are as follows:

“Whereas there have been many complaints as to the centralized imperial character of the present National Board of Health; and, whereas, the bills which have been pending before Congress for the increase of the executive power of the present board have been withdrawn:

“*Therefore, be it resolved* that the proposed act, entitled an act to amend an act * * * to create a Board of Health for the United States be referred to the Section on State Medicine and Public Hygiene, for its consideration and report.”

The act was then read, the main provisions being that it abolishes the present Board of Health, and in its place substitutes a board composed as follows: One medical officer each from the Army, Navy and Marine Hospital Service; the chief officer of the Weather Bureau; also one officer each from the Engineer Corps and Department of Justice. These to be appointed by the President, with the advice and consent of the Senate. Each State or Territory to be represented by a member of its State Board of Health, when such exists, who shall be appointed by the Governor of the State or Territory; and also an additional member selected from the Board of Health of the most important seaport in such State. There shall be no more than two members from each State, each of whom shall receive ten dollars per diem when

serving. Then follows details as to the duties and powers of the board.

Dr. Edwards, of West Virginia, offered resolutions to the effect, that the passage of the bill would be impracticable and unadvisable; and, also, that the present National Board is satisfactory in its workings and organization. Adopted, after full discussion.

The Personal Factor in the Etiology of Preventable Diseases.—

Dr. A. C. Carroll, of New Brighton, N. Y., said there are two factors to be considered in all preventable diseases, viz.: the exciting causes or predisposing influences, and the susceptibility of the patient. There was a marked proclivity of some persons to being affected with certain diseases, when others exposed to the contagion would remain free from the malady. A third factor often exists, formerly spoken of as the "epidemic constituent of the atmosphere," when there was increased tendency to the reception of contagion. This is seen when persons escape from attacks of diseases, at one time, and are attacked at another season, when the system is more susceptible to the effects of the poison.

Dr. E. C. Angell, of this city, then read a paper on *Hot-Air Bathing as a Means of Promoting Health and preventing Disease*. He spoke of the lack of bathing accommodations for the poorer classes in this city.

An abstract of a paper on *Microscopical Sections from Cases of Diseases of the Brain and Spinal Cords*, was read by Drs. Chas. R. Mills and Carl Seiler, of Philadelphia. Numerous sections through the cerebro-spinal matter were shown, which had been taken from the following cases: one of posterior spinal sclerosis, terminating in general paralysis of the insane; one of hydrocephalus; two of epilepsy, and one of hydrophobia.

June 3.—Dr. Billings offered the following resolutions, which were adopted;

Resolved, That this Association approves of the plans proposed by the Superintendent of the Tenth Census for the collection of data, with regard to the insane and idiots of the United States, and that it urges upon physicians that they should aid in this work, as far as possible, by carefully replying to the schedule of queries on this subject, which will be sent them from the Census Office.

Moral Treatment of the Insane.—Dr. Chas. W. Page, of Hartford, Conn., spoke of the necessity of having able and honest officials in charge of institutions for the insane. He alluded to the advantages to be derived from having the in-

mates sleep in dormitories which communicate with each other, as well as to the more frequent association with each other. Great stress was laid on the benefit to be derived from educating the patients, so that their minds might be diverted from their malady, and as a possible means of improving their condition. Manual labor and exercises of various kinds were mentioned as other ways of influencing

Dr. Bell offered the following resolution, which was adopted:

Resolved, That a general sanitary organization is a necessity of every enlightened commercial nation, and the service of the National Board of Health of the United States, since its organization, has been such as to impress us that both in its *personnel* and organization it is entitled to the confidence of the government and the people, and we join the American Public Health Association and the National Academy of Science, in earnestly recommending to Congress that the suggestions and estimates of the Board receive their legal sanction, believing that the money asked for is necessary to the work of the Board, and will be a most judicious expenditure of money.

Dr. A. L. Carroll, of New Brighton, N. Y., offered the following resolution, which was carried:

Whereas, The value of vital statistics depends upon their scientific accuracy, as regards the etiology as well as the diagnosis of disease; this Section would urge upon the Association the importance of recommending that every medical school within its jurisdiction establish a chair of Public or State Medicine, as an essential part of its curriculum.

Dr. J. V. Quimby, of Jersey City, then read a paper on the *Criminal use of Chloroform*.

The author gave the main points in the Smith murder case, he having been consulted as to the possibility of chloroforming a patient while asleep without awaking him. It was determined, by experiment in three cases cited, that a person could be chloroformed without disturbing him, and that he would sleep for some time after its administration.

Suspicious of Poisoning.—Dr. Antisell, of Washington, advocated the appointment of a medical analyst, to act in conjunction with the coroner.

On motion of Dr. A. N. Bell, the name of this Section will hereafter be known as the "Section on State Medicine."

Book Notices, &c.

Memorial Oration in Honor of Ephraim McDowell, "The Father of Ovariectomy." By SAMUEL D. GROSS, M. D., LL. D., D. C. L., Oxon. Published by the Kentucky State Medical Society, May 14th, 1879. Louisville, Ky.: John P. Morton & Co. 1879. 8vo. Pp. 77.

This is one of the most handsomely printed and bound volumes relating to medicine, or *in memoriam* of a medical author, that we have ever seen issued from any press. We return our profound thanks to Dr. C. Rogers, for the copy he has sent us. Dr. Gross—the world-famed surgeon—successfully established, years ago, the priority of Dr. McDowell as the author of ovariectomy; and it was most fitting that this distinguished surgeon should have been the orator. His oration is eloquently sublime, descriptive, biographical and eulogistic, and covers 51 pages of the book. Dr. Lewis A. Sayre—world-famed alike for his grand discoveries in surgery—adds an address of three pages. The rest of the book contains letters from distinguished gentlemen and members of the profession, from all parts of the country, besides the address of presentation by Dr. R. O. Cowling, of Louisville. Outside of professional interest, McDowell's memory is specially dear to Virginians, as he was born in Rockbridge county, Va., in 1771. The monument is beautifully located near the centre of Danville, Ky., where he resided in after life.

Posological Table: Including all the Official and Most Frequently Employed Unofficial Preparations. By CHARLES RICE, Chemist, Department Public Charities, N. Y., etc. Revised and Approved by the Medical Boards of Bellevue and Charity Hospitals. New York: Wm. Wood & Co. 1879. 16mo. Pp. 96. (From Publishers.)

This little book was originally constructed "as a convenient guide in regard to *average adult* doses of ordinary remedies, but more particularly with a view to establish limits beyond which the dose of *powerful remedies* should not be carried," unless specially required. It includes all remedies named in the United States Pharmacopœia, together with important formulæ from other pharmacopœias, and the more commonly employed unofficial preparations. The misfortune of the book is that it is not of pocket size, since almost every fact given is more satisfactorily stated in larger books, which ought to be in the libraries of every practitioner. The use of thinner paper, lengthening the page, thereby lessening the

total number of pages, and prefixing or affixing it to some visiting list, would make this "Posological Table" very useful to practitioners for "ready reference." As it is, since it has to remain on the library shelf or table, it is not as valuable as many of the larger books.

Naval Hygiene, Human Health, and the Means of Preventing Disease, with Illustrative Incidents, Principally Derived from Naval Experience. By JOSEPH WILSON, M. D., Medical Director U. S. Navy. Second Edition. With Colored Lithographs, etc. Philadelphia: Lindsay & Blakiston. 1879. 8vo. Pp. 274. Cloth, \$3. (From Publishers.)

This work, as its title indicates, is specially intended as one on hygiene as applied to living or traveling on the sea. It is prepared somewhat in the form of a diary, expanded during moments of reflection and when there was time and opportunity for consulting authorities, and has original valuable suggestions, growing out of a practical acquaintance with the wants and feelings of seamen. While there is much that is not strictly medical, as the term is generally employed; yet, many suggestive hints are made regarding such affections as sea-sickness, nostalgia, malarial diseases, yellow fever, scurvy, etc., etc. We recommend this book to all who may have anything to do with sea-faring—especially to surgeons on board of vessels, captains, etc.

Paracentesis of the Pericardium. A Consideration of the Surgical Treatment of Pericardial Effusions. By JOHN B. ROBERTS, A. M., M. D., Lecturer on Anatomy in the Philadelphia school of Anatomy, etc. With Illustrations. Philadelphia: J. B. Lippincott & Co. 1880. 12mo. Pp. 100. Price, \$1.25. (For sale by Messrs. West, Johnston & Co., Richmond.)

This little volume contains the result of a great deal of careful and profitable research. While we cannot say that it records any really new principle or suggestion, it is still a valuable monograph, giving a statement of the causes, varieties and quantities of pericardial effusions; the symptoms, signs, diagnosis, prognosis and treatment of the same, with a history of paracentesis of the pericardium. After describing the anatomy of the parts concerned, and the cases suitable for operation, the several approved methods of operating are detailed, and the point of selection for the puncture by the aspirator needle or the trochar is discussed. The dangers to be encountered, and the objections to the operation are pointed out, as well as the treatment of complications. A table of cases, with results of the operations, is appended.

Editorial.

American Medical Association.—We have so entirely given up this number of the *Monthly* to reports of the recent proceedings of the Association, that we have no room for editorial review. It is with great pleasure that we note the almost uninterrupted harmony of the session. By common consent, the attempt by some unknown party, or by an unsigned letter sent to the Judicial Council, making false charges against the Medical Department of the United States Navy, to exclude the representatives of that Department, was regarded as underhanded and proved ineffectual. We find no mention anywhere in the reports that the controversy regarding the relationship of teachers in regular medical colleges to homœopathic students who may happen to be in their classes; and we sincerely hope this controversy will never again be re-opened. Regarding scientific matters, we do not observe much that is entirely new; but much that is sufficiently useful to be entered again on record, since in the great struggle for discoveries in medicine a great deal of importance seems to have been lost sight of. We are sure that in the condensed reports which fill this issue, most readers will find something of practical service to them.

An important suggestion, advocated with great earnestness by the retiring President, was, that the publication of the Annual Transactions of the Association should hereafter be committed to a journal, to be established by the Association itself. We are entirely favorable to the plan proposed, as we think much more benefit would result to the Association and to the profession at large. Dr. Sayre will live in the grateful memory of a future generation for the initiative he has taken in this measure, which must soon become an accomplished success.

As will be seen from the published proceedings, the next session of the Association will convene in this city during May, 1880. Under the Presidency of Dr. John T. Hodgen, of St. Louis, whose influence is not limited to the West, we have a right to hope for a large attendance and abundance of useful papers and discussions.

We hope to effect some arrangement, like that initiated by the *Medical Record*, by which an *extra daily* issue of the *Medical Monthly* may give full daily reports of the proceed-

ings of the general sessions, as well as of the sessions of the several Sections. Such an undertaking is, of course, attended with much extra labor and expense.

Epidemic of St. Vitus' Dance.—The *Cincinnati Lancet and Clinic*, of May 22, 1880, contains an interesting partial account of an outbreak of St. Vitus' dance among the female students at the Ursuline (Catholic) Academy, in Brown county, Ohio. From some cause unknown, it seems that the physician of Fayetteville—under whose care the pupils were at the time of the outbreak, and under whose treatment they remained until removed to their homes—who has been requested, three separate times, to furnish a report of the epidemic for publication, as yet remains silent, without giving any satisfactory evidence why a report is not furnished. Two eminent physicians of Cincinnati have also visited the Convent, to investigate the cause of the epidemic; but they, too, have declined to state any facts pertaining to the outbreak.

The Reuling versus Chisolm Trial.—It seems that some time ago a Mrs. Ruths brought suit against Dr. George Reuling, of Baltimore, for malpractice, in that he operated upon both eyes for cataract, without her consent, and with an unfortunate result. But after a most thorough sifting of the evidence before the court, this well-known ophthalmologist was completely vindicated from any charge of malpractice. During the trial, Dr. Reuling thought he discovered that Dr. J. J. Chisolm instigated the suit, and he therefore brought charges of unprofessional conduct against this distinguished eye and ear surgeon during the recent session of the Medical and Chirurgical Faculty of Maryland, which charges were referred for investigation to the Ethical Committee of the Faculty, consisting of Drs. Williams, Winslow, Wilson, Houck and Ward. The committee, having investigated all the charges against Dr. Chisolm, reported that they found them without foundation; and the report was accepted by a unanimous vote. Members of the Ruths' family examined, as also their lawyers, testified that not only had Dr. Chisolm nothing to do with inciting the suit, but that he had used every means to prevent it from being brought into court. In the midst of the discussion, Dr. Reuling offered his resignation, the Society declined to accept it. We trust this exoneration both of Dr. Reuling from malpractice, and exoneration of Dr. Chisolm from unprofessional conduct, will be accepted by the parties and their friends as satisfactory.

We append the resolutions of the investigating committee of the Medical and Chirurgical Faculty of Maryland.

"After the most careful investigation of so grave a charge, we beg leave respectfully to report—

1st. "That Dr. Chisolm is entirely innocent of the charge made against him by Dr. Reuling."

2d. "That Dr. Reuling had not the slightest foundation for his accusation against Dr. Chisolm."

3d. "That the evidence undoubtedly shows, that so far from instigating the suit against Dr. Reuling, he advised the Ruths' and their counsel not to bring suit."

We are sorry to feel called upon to make this publication. But Dr. Reuling's report of this trial, which has been widely circulated, implicating, without proper foundation, the honor and professional reputation of so distinguished a professional gentleman, seems to call for this public statement of Dr. Chisolm's innocence in the affair.

The Medical Society of North Carolina held its 27th annual meeting in Wilmington, May 11th, 12th and 13th, 1880, Dr. J. F. Shaffner, of Salem, presiding until the third day, when he was unexpectedly called home; Dr. L. J. Picot, of Littleton, Secretary. It was a meeting of unusual interest. The minutes of the session, with a roll of members, etc., covers 30 pages of the *North Carolina Medical Journal*, May, 1880, to which excellent journal we are compelled, for want of space, to refer those of our readers who would like to have a fuller report. The next session will be held in Asheville, on the last Tuesday in May, 1881. The following officers were elected and appointed for the ensuing term: President, Dr. Richard B. Haywood, Raleigh; Vice-Presidents, Drs. J. A. McRae, Fayetteville, W. H. Lilly, Concord, R. H. Speight, Tarboro, W. J. H. Bellamy, Wilmington; Treasurer, Dr. A. G. Carr, Durham; Secretary, Dr. L. Julian Picot, Littleton; Orator, Dr. J. F. Long, Newbern; Delegates to Medical Society of Virginia, to convene in Danville, October 19th, 1880—Drs. R. L. Payne, Lexington, H. M. Alford, Greensboro, H. T. Bahnson, Salem, J. W. Jones, Tarboro, Preston Roan, Winston, and H. S. Norcom, Wilmington.

The Peoria Medical Monthly is a new journal of 24 pages, price \$1 a year, which has industrious editors in the persons of Drs. John Murphy, J. L. Hamilton and H. Steele—all of Peoria, Ill. The matter and style of issue of the two numbers of the journal issued are practical and attractive.

The St. Louis Medical and Surgical Journal has discontinued the publication of the "Transactions of the Medical Association of the State of Missouri." Last year, the editor states, the Journal offered to publish the State proceedings at a pecuniary sacrifice. Instead of receiving what was confidently expected—well-merited appreciation—the journal management received scorn and abuse; but this, however, came from only a few, who took advantage of their position, and intentionally and persistently perverted the motives of the editor; and through them others were made to misunderstand his efforts in the interests of the Society and the profession of his State.

Lactopeptine has established for itself a permanent record of usefulness in digestive troubles. Our purpose in naming it at this time is to remind practitioners of its special benefits in many of the digestive diseases of children peculiar to this season of the year—particularly in cases of summer diarrhœa of children, the convalescent stages of cholera infantum, etc.

This number of the *Medical Monthly* is issued on time. We hope our friends will be pleased with the full report we give, in this issue, of the proceedings of the American Medical Association.

Obituary Record.

Dr. Samuel Chopin died at his home in New Orleans, after an illness of two days of pneumonia, May 2d, 1880, at the age of 52. He was one of the founders of the New Orleans School of Medicine. He leaves a brilliant record for emulation as a surgeon of distinguished ability. We are promised a biographical sketch of Prof. Chopin in the July number of the *New Orleans Medical and Surgical Journal*.

Col. T. S. Hardee, who has of late years become so distinguished in subjects connected with hygienic arrangements, as he has long been in the field of military and civil engineering, died at his residence in New Orleans, on May 21st, 1880.

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Original Communications.

ART. I.—Some Practical Observations made in the Department for the Diseases of Children at the Central Dispensary, Washington, D. C. By GEO. L. MAGRUDER, A. M., M. D., Physician in Charge, etc. Washington, D. C.

During the twelve months ending April 1st, 1880, there were treated in the Department for the Diseases of Children, in the Central Dispensary, 1,145 cases—714 colored, and 431 white. These were exclusive of those suffering from affections of the eye and ear.

In such a large field, many facts of interest and value have been gleaned. That these may not be lost, I have been encouraged to submit some of my observations, with the hope that they may serve to bring back to the minds of the profession some points that may have escaped their memories, as well as to call their attention to some which, though mentioned in our text-books, have not received that prominence which they so richly deserve. Brilliant theories and nice discriminations as to pathology and therapeutics, afford entertaining reading; but solid facts, derived from actual experience in regard to the relief and cure of the afflicted, give

much greater satisfaction to the busy practitioner, who has not the time for elaborate and extensive research.

In many cases, the poor population of this city are very imperfectly nourished. Their food is of poor quality, and meagre in quantity. They live in crowded tenements, with the worst hygienic surroundings. Consequently, I have noticed a large number of developmental diseases.

There were 20 cases of *rachitis*—1 white female, 9 colored females, and 10 colored males. The colored race seemed to be especially liable to this trouble. The ages of these children extended from several months to several years. The results obtained were sometimes almost incredible. Children that had scarcely been able to stand or walk, soon showed the good effects of treatment. This consisted in an abundance of fresh air, salt baths, friction, and the administration of cod liver oil, the compound syrup of the hypophosphites, and the granular extract of malt, dissolved in water. This makes a preparation which is generally very readily taken by children. It should be made in small quantities in the summer, as fermentation sometimes takes place after it has been kept for awhile. When the oil could not be taken, I had very satisfactory results from the malt and hypophosphites.

Tuberculosis seemed to be equally divided between the races; the mulatto, however, furnished more cases than the darker colored ones. The before-mentioned preparations also gave admirable and most satisfactory results in these cases. The night sweats, hectic fever and diarrhœa were often soon arrested. In several cases, so great was the improvement that I failed to recognize the children after they had been absent from my clinic for several weeks.

No marked difference between the races as regards the *scrofulous indurations* was noticed. In these cases, great benefit was derived from cod liver oil, the syrup of the iodide of iron, and iodide of potassium, and the external application of the compound tincture of iodine, or iodoform dissolved in collodion, ʒj to ʒj. Cases that had been intractable for years, yielded readily to this treatment. I attribute the success to the fact that the syrup of the iodide of iron was given in

doses of from one-third of a drachm to a drachm, and the iodide of potassium in two to five-grain doses. Small doses did not seem to be efficacious.

Affections of the alimentary canal were very prevalent. *Diarrhæa*—inflammatory and non-inflammatory—occurred in 66 cases—21 white, and 45 colored. Stupor so frequently attends these troubles that I have sought to treat them without the use of opiates, in order that the disease should not be masked by their effects. Moreover, these unfortunate children are generally cared for by ignorant and frequently careless people. I have not the slightest doubt but that many children die annually from opium. The attendants are unable to appreciate the directions of the physician or to make intelligent discrimination. In private and hospital practice, these apprehensions do not prevail to so great an extent. Here the patients are under the daily observation of the physician and intelligent nurses. I have not used in my service during the year twenty drops of laudanum for these cases. I recommend attention to diet, occasional small doses of calomel or hydrargyrum cum creta, and the administration of mistura creta, chlorate of potash and subnitrate of bismuth. Improvement was nearly always observed in a very short while; the vomiting would be controlled; the movements would be less frequent and would become firmer and more natural. In some obstinate cases, the tincture of catechu or kino was also used.

There were 21 cases of *dysentery*—10 white and 11 colored. These were treated with the fluid extract of ergot, 5–20 drops at a time from four to five times a day. Almost every case immediately responded to treatment, and was either entirely relieved or much improved.

Three cases were attended with *prolapsus ani*. The ergot was used without any other medication. Complete relief was soon obtained.

In addition to the ordinary symptoms of *lumbricoides*, I observed that there was an increased flow of saliva. A mixture of the fluid extract of spigelia and senna with santolin, gave very satisfactory results.

Congenital syphilis occurred in 48 cases—seven white and

41 colored. Catarrhal symptoms of the respiratory tract were nearly always present. Eruptions around the mouth and anus were frequent. Occasionally *condylomata* were also observed around the anus. These symptoms nearly all appeared in the first year of life. In one or two cases, they were delayed until the third year. The treatment adopted was small doses of hydrargyrum cum creta. In very young infants, the unguentum hydrargyri, applied on a bandage around the abdomen, gave very satisfactory results. Calomel sprinkled on the condylomata soon removed them.

Uniform and rapid success attended the treatment of *eczema capitis*. This consisted in the careful removal by flaxseed poultices of all the crusts; washing the affected parts with a solution of carbonate of potash, small doses of hydrargyrum cum creta, or calomen, and the application of hydrargyrum ammoniatum— $\mathfrak{5j}$ to the ounce of vaseline.

Hemiglossitis occurred in a colored boy about ten years of age. This case coincides with those generally observed. It commenced by an attack of pharyngitis, and was limited to the left side. This side was greatly swollen, and quite painful. Deglutition and articulation were very difficult. About the centre of the tongue, the tumefaction was the greatest, and seemed about to form an abscess. The glands under the inferior maxilla on the affected side were much enlarged and painful. Free administration of chlorate of potash and muriate of ammonia gave speedy relief.

There was also one case of *scleroderma*. The subject of this disease was a bright mulatto boy, aged 9 months. The parents were healthy, but in poor circumstances. The mother's supply of milk was scanty, and consequently the child had to be fed upon whatever the mother was able to procure for it. She informed me that she noticed a swelling in the left leg above the ankle when the child was *four months* old; that the child was restless and very fretful, slept badly, was constipated, and cried when handled. Upon examination, I found that the teeth had not yet made their appearance; there was neither febrile movement, cutaneous eruption nor discoloration. The lungs and stomach were free from disease. The left leg, from just above the malleoli as

far as the knee, was enlarged, tense and shiny. The right leg presented the same appearance, but not to such a marked degree. At first glance, it appeared as though there was great œdema. The absence of pitting on pressure, and the impossibility of gathering up any folds of the skin, precluded this diagnosis. The sensation to the touch was firm and resisting as that of a cadaver exposed to a low temperature. The muscular movements were not retarded, nor did I notice any pain evinced during my examination, although the mother had stated to the contrary. Save this induration and enlargement, there was no evidence of disease. Analysis of the urine removed suspicion of any kidney trouble. This induration soon extended over the thighs, abdomen, chest, shoulders, arm and forearm, but not to the same extent as in the legs. The hands and feet remained free from implication. Cod liver oil and the compound syrup of the hypophosphites was administered.

May 29. The child is now 16 months old, and has cut six teeth in the last month. He has improved very much in every respect, and is now able to walk. The induration has almost entirely disappeared. There are slight traces of it along the anterior of the left leg, the place of the commencement of the trouble.

There were ten cases of *Pott's disease of the spine*. It affords me great pleasure to add my testimony to the valuable treatment introduced by Prof. Lewis A. Sayre. Three of the cases had lost the power to stand or walk. They could drag themselves around the floor with difficulty. Improvement was manifest almost immediately after the application of the jackets. They now run around with great ease, and play with the other children in the neighborhood. One little fellow cries to have his jacket replaced whenever it is taken off. The other cases had not progressed so far; yet there was great impediment to locomotion, with pain and deformity. I employed jackets made of plaster-of-Paris and silicate of soda. I make the latter by first putting on a plaster jacket; when it is sufficiently set, I cut it down in front, remove it, then envelope it in roller bandage so as to co-adapt the edges. When this is well hardened, I scrape the inside

thoroughly, and pour in plaster to make a positive cast. I do not fill the case so as to make a solid cast. I apply the plaster only around the inside to the thickness of about an inch. After this is set, I unfasten the bandage and remove the shell, rub down the little asperities, and fill up the depressions that may exist upon the cast. I put upon this several layers of ordinary roller bandage, then apply the solution of the silicate of soda with a varnish brush, then another layer of bandage, which is also covered with the silicate of soda. This process is continued until the jacket is firm enough to support the child. The application of the extra turns of the bandage around the cast in the first place, facilitates the drying. This is also hastened by heat. After it has well dried, I cut the jacket down the front, perforate it for ventilation, and insert in the edges where it comes together, eyelets, or, which I prefer, hooks similar to those used to lace up shoes. I find by this method that I can get a smoother jacket than by applying it after the manner recommended by Dr. E. H. Coover, of Harrisburg, Pa. These jackets answer admirably in the incipency of the disease, before the deformity has become very prominent. The permanent plaster jacket seems to have more power to correct the unshapely appearance of the patient in the later stages. Disappointment sometimes attended my first efforts at applying the plaster. I found that, time and again, the plaster would either not harden at all or harden very slowly, thereby fatiguing the patient. Now I take the precaution to have all the plaster I use for the jackets re-heated. By doing this, any moisture that may have been absorbed from the atmosphere is driven off, and we are rewarded for our trouble by finding that the first turns of our rollers are almost consolidated by the time the last turns are completed. A supply of this re-heated plaster can readily be kept on hand in well closed bottles or cans. The close-fitting, armless shirt is an important element in the successful application of the jacket.

The influence of *elongation and adhesions of the prepuce upon the nervous system* was illustrated in three cases. In one case so great was the relief afforded by breaking down the adhesions, that I will here report the case a little more in detail.

A white boy, aged 13, had shown continued great muscular debility in his lower extremities since birth; this was more noticeable in the left leg. This leg would give way under him, and he would fall in the street and around the house repeatedly during the day. He complained of dizziness and pain in the lumbar region. Nocturnal incontinence of urine also took place. Upon examination, I found the prepuce firmly adherent to the glans penis, almost up to the orifice of the urethra. I broke down the adhesions on the 19th of January. Positively no medication was employed. There was no return of a single symptom complained of, except, upon one occasion, there was incontinence of urine. I saw the boy's mother in May. She informed me that the boy had continued to grow stronger, without any relapse; was then perfectly well, and was in better condition than ever before.

The results in the other two cases were very good.

The operation for *strangulated inguinal hernia* was successfully performed upon a boy child seven months old. A drainage tube was inserted in the wound, and this was dressed with carbolized oil. A speedy recovery took place without any bad symptoms. The operation has proved, to the present time a radical cure.

Aspiration was done twice in a case of *congenital hydrocephalus*. The first time the operation was performed, the child was six weeks old. There were convulsions and vomiting; the iris was almost buried below the lower lid; vision was absent; the thumbs were firmly fixed in the palms. Fourteen ounces of fluid were drawn off; after which, the head was encased in adhesive strips. No elevation of temperature ensued after the operation. Amelioration of all the symptoms was soon manifest. The convulsions ceased and vision returned. In about a month the effusion was almost as great as at the date of the operation. In another month, the bad symptoms commenced to re-appear. Aspiration was again performed, and twelve ounces of fluid were drawn off. This time the result was not so satisfactory, as at the first operation. Meningitis almost immediately developed. The child lingered with various exacerbations until it was nine months

old, when it died in convulsions. At the *post-mortem*, the brain-substance was found flattened out into a thin film along the base of the skull. There was also a thin strip of brain-tissue about one inch wide on each side of the longitudinal sinuse. This seemed to be entirely separate from the other portion of the brain. There was no effusion between the membranes. The lateral ventricles were enormously distended, and contained five and a half pints of fluid.

310 *E Street, N. W.*

ART. II.—(1) **Dilatation of Heart, etc.** (2) **Acute Phthisis.** (3) **Mitral Insufficiency.** (4) **Chlorosis or Anæmia.** (5) **Cirrhosis of Liver.** (6) **Chronic Pleurisy with Adhesions.** A Clinic. By FRANCIS DELAFIELD, M. D., Adjunct Professor of Pathology and Practical Medicine in College of Physicians and Surgeons, New York, N. Y. (Specially reported for the *Virginia Medical Monthly*.)

CASE I.—RENAL COLIC—DILATATION OF HEART WITHOUT KNOWN CAUSE.—You have heard this man state his history, gentlemen. His health has been pretty good until within the last six weeks, when he was seized with a violent attack of pain referred to the lumbar region, extending forwards to a point a little below the end of the sternum, and extending downwards into the groin. This attack lasted for three or four days, and he has had two shorter and less severe attacks since that time. After each attack his testicles have been left sore; his water has contained a certain amount of brick dust sediment, but he has not observed any larger particles mixed with this. Besides this, the man has become feeble; he is somewhat tremulous, so that he says he can no longer write with facility as he used to. He complains of shortness of breath, and of an unnatural feeling of palpitation about the heart, and also of a certain feeling of discomfort and soreness about the small of the back.

As I place my hand over the heart, I do not get any very distinct impulse anywhere. There is a certain diffuse impulse, but there is no circumscribed apex beat; and yet the heart seems to be somewhat enlarged. The limit of dullness on the left side of the heart is fairly to the outside of the

nipple, instead of being just close to the nipple as it should be. There is no murmur, but the first sound of the heart is not quite as loud and distinct as it should be. The resonance and breathing are good over both lungs. The dullness over the spleen is about what it ought to be. The liver is a little larger than it should be. There is considerable tenderness over the epigastric region.

There is no one condition which will account for all the symptoms which he has; he is suffering from more than one trouble. The three attacks which he has had of severe pain in the back running down into the groin, are probably to be referred to the passage of a renal calculi. I should suppose that he had suffered from attacks of nephritic colic, the first of the attacks being most severe; the subsequent ones being less severe. The presence of brick dust sediment in his urine points rather to disorder of the functions of the liver than to any disorder of the functions of the kidney. The presence of an undue amount of urates in the urine is an evidence of indigestion—an evidence of functional disorder of the liver—not of disease of the kidney. The attacks of sick headache, the occasional dizziness of which he has complained, and the disturbance of the general health, would tend in the same direction.

His shortness of breath, and palpitation of the heart, of which he has been complaining lately, however, are due to a different cause. They are due to the fact of the heart being dilated, and of there being no compensating hypertrophy to make up for this dilatation. The dilatation in his case does not seem to depend upon any change in the orifice of the heart. There is no murmur, but it is apparently one of the cases of dilatation with which we meet where the valves are normal, or very nearly normal. I should also be disposed to think that the somewhat extreme prostration of which he complains now—the nervousness, the tremulousness, the inability to use his hands—were rather dependent upon the condition of his heart than anything else.

Attacks of nephritic colic, although they are very painful at the time, and although the man may be prostrated a little while afterwards, usually do not interfere with the general

health to any particular extent. When a man gets well from an attack of renal colic, his general health is very much what it was before. It would seem, therefore, that this man's general condition is to be accounted for rather by the condition of his heart and liver than by these attacks of renal colic. The change in the size of the liver, I presume, is simply due to fatty infiltration.

Perhaps the best treatment that we could put him on for the present would be ten drops of the tincture of *nux vomica*, and twenty drops of the dilute nitro-muriatic acid, three times a day. His food should consist principally of meat, fresh vegetables, and fruit—taking the vegetables rather out of proportion to the meat. He should eat meat only once a day. He should not stay in the house all the time; on the other hand, he should avoid undue exertion. It is not well for him to run or to walk fast, or to lift any heavy apparatus, or to run upstairs, or to do anything which will bring too much strain upon the heart. (The patient goes out.)

Look upon that man's case with some apprehension. He is really more ill than you would think from seeing him walk into the room, and more ill than he thinks himself. I am always very much afraid of these cases of dilatation of the heart, especially if it is a dilatation without a cause; a dilatation without a murmur. They are worse than cases of dilatation where there is an actual cause to account for it.

CASE II.—ACUTE PHTHISIS.—Here we have a young woman who says she has been sick only seven weeks; that before that time her health was very good. Her illness began with an exposure to cold. She was out in wet weather; she got her feet wet, took a cold, and felt good-for-nothing, and since that time she has not been well. She seems to have had fever off and on during that time, but of an irregular character. She has lost flesh, and she has lost strength. She has had only a very moderate amount of cough, and this cough has been for the most part a dry cough; only latterly has there been a little mucus expectorated with it. She has not spit any blood at any time. She has complained of no pain in the side, but she is somewhat short of breath. That makes about the whole of the history—an irregular fe-

ver, a moderate amount of cough, for the most part dry; latterly there is some expectoration; loss of strength, and loss of flesh, some dyspnœa, loss of appetite.

When we examine the chest, we find the right side normal; on the left side, we find in front tympanitic resonance, with a few coarse râles. Over the left side behind we have dullness, most marked over the lower part of the lung; we have a fine sub-crepitant râle, bronchial voice and bronchial breathing.

I should think there is no question that she is suffering from phthisis. The case is evidently one of those cases, which are, fortunately, not very common, in which phthisis is developed very rapidly, and in which the phthisis is of that anatomical form in which there is a good deal of pneumonia—the so-called pneumonic phthisis, or catarrhal phthisis, as it is sometimes called, or catarrhal pneumonia, as it is called by those who do not believe in its tubercular character. These cases will sometimes give you just such a history as this—the symptoms of the patient not being at all in proportion to the extent of the lesion. You will observe that here is this young woman who does not seem at any time to have been very sick, although she is run down a good deal, in whom the onset of the attack was not marked by any very marked symptoms, and yet she is only breathing with one lung practically. The left lung is of hardly any service to her at all. There is pretty complete consolidation of most of the left lung. There may be some part of the left upper lobe with which she breathes, but the larger part of the left lung is practically of no use. It is consolidated, and yet here she is walking about, and not looking by any means as sick as you would think a person in her condition would be. This is a sort of history, a sort of condition of things that we get occasionally in phthisis—not very often. And such a case as this you can fairly call a case of acute phthisis; that is, acute so far as the development of the lesion is concerned. To have such a solidification of the lung developed as in this case within seven weeks, is acute for such a disease as phthisis, for persons might take seven years instead of seven weeks

before the lung would be as completely consolidated as it is here.

Now, of course the question of importance is to know what is likely to be the result of the disease in her case. It is not at all likely to be good. Of course it is somewhat in her favor that so far the constitutional symptoms have not been in proportion to the amount of local lesion. It shows a certain capacity on her part for bearing disease without being too much prostrated by it. But the rule is that these cases do not do well. It may be slow; it may be sometime in doing badly, but it is pretty sure to continue to do badly. And the way in which it will do badly is by the formation of cavities.

We may represent the condition of this young woman's lung on the blackboard in this way. There is scattered through this left lung lobules of some size, and tolerably close together. Each of these lobules is situated around a small bronchus, and each of these lobules, if we could see them at the present time, would present a white or a yellow color, and would be quite dense and compact. Probably, in some of them, we would find the centre of the little lobule becoming softened; the centre no longer as hard and as firm in some of the lobules as in others. These little lobules, however, are not all that we would find. We would find in addition that the lung between these was for the most part solid—this solidification being of a red or a reddish gray color; the lung tissue between these lobules being filled in with the products of inflammation, and the lung being hepaticized between the lobules.

Well, now, what will probably happen to this young woman is this: As the disease goes on these lobules will become larger and larger in proportion to the surrounding consolidation. The softening at the centre of these lobules will become more and more marked, and will involve more and more of the lobule, until a little cavity forms, and each of these little cavities will be in communication with a bronchus around which the original lobule was formed. Then as the woman takes to breathing, and as the inflammatory

products continue to go on, these cavities will become larger and larger, and the lung tissue between them will become more and more compact. Then after a time two or more of these cavities will communicate together, and finally the woman, if she lives long enough, may, after a time, instead of having anything that you could call a lung on the left side, have nothing but a mass of fibrous tissue, honey-combed with cavities, these cavities communicating with a bronchus. That is what is likely to happen to that woman provided that the right lung continues good, and she continues to live.

This, however, is not by any means the only thing that may happen to her. The disease may run a very much shorter course. Instead of remaining confined to the left lung, the disease may extend to the right lung, and the same process may go on there; if this is the case, the disease will run a shorter course. But one or the other of these two things is pretty certain to happen; either the disease will extend to the right lung and she will die within a short time, or the right lung will remain healthy and the left lung will go through the changes which I have described to you.

CASE III.—MITRAL INSUFFICIENCY WITH LEFT VENTRICULAR HYPERTROPHY.—Here is a boy not quite four years old, whose aunt tells me he has heart disease. She does not know how long it has existed. She says he has not been sick with any other disease. On examining his heart, I find the apex beat a little farther to the left than it should be. There is a loud murmur with the first sound—a systolic murmur. It is so loud that it is heard all over the heart, but it is perhaps loudest at the apex. It is conducted from the apex around to the left side, and can be heard very distinctly over the child's back. There does not seem to be any way of finding out a particular cause of this trouble. The child has not had scarlet fever nor rheumatism, and these two diseases seem most apt to cause heart trouble. We must remember the fact that children may be born with heart trouble; but when that is the case, the cardiac trouble is usually on the right side—not on the left side of the heart.

In this case, the lesion seems to be an insufficiency of the mitral valve with hypertrophy of the left ventricle.

The boy's general condition is good enough, and the disease is not nearly as marked as it is apt to be in children. When we do get heart disease in young children, we are very apt to get more marked symptoms; the heart's action is apt to be tumultuous and irregular, and the hypertrophy is apt to be more considerable than it is here. His aunt says he plays like other boys, but he is troubled some when he goes upstairs.

The best thing we can do for the boy is to put him upon small doses of iodide of potash, with the idea of having it kept up for a very considerable length of time.

CASE IV.—CHLOROSIS OR ANÆMIA.—You will notice, gentlemen, the color of the skin of this young woman, how exceedingly pale it is; the paleness involves not only the skin, but the lips are perfectly white; if you look inside of the mouth you will see that the inside of the lips is of this same perfectly pale, white color. The tongue also is of an unnaturally white color. This white color extends over the whole of her skin. Her pulse is quite full, and not very compressible; it is about normal in frequency. The heart's action is regular enough; there is no murmur at the apex; there is a murmur with the first sound at the base—a murmur heard at the base and conducted up along the course of the arteries in the neck.

You have, then, a young woman eighteen years old, whose health was good until six months ago. Then, while living out and working hard she began to acquire the color which she now has, and to lose strength, and that loss of strength has continued up to the present time; except for the loss of strength the girl hardly complains of anything. She says she does not feel sick; she has no pains anywhere; she has sometimes a little disturbance of the stomach, but there are no positive symptoms at all except simply a loss of strength and a loss of color.

Now, what is the matter with this girl? She has what is ordinarily called chlorosis, or what is also sometimes called

simply anæmia. Now, what do we mean by that? A change in the composition of the blood. That is practically the lesion from which she is suffering. The loss of strength, the change in color, the murmur which we hear at the base of the heart, are all dependent upon this one thing which we may properly enough call a lesion, because it is an anatomical change. There is a change in the composition of the blood, but exactly what this change in the composition of the blood is we do not very well know. We know that there is a diminution in the number of red blood globules; there is sometimes an increase in the number of white blood globules; there is sometimes some change in the appearance of the red blood globules, and there are probably changes in the plasma of the blood, although concerning this our knowledge is less certain. The only change of which we have any very definite knowledge is, that if you count the number of red blood globules in the blood of such a patient as this, you will find that they are fewer than are present in the blood of a healthy person.

This is a case of simple chlorosis or simple anæmia, and under proper treatment the girl will get entirely well.

But you must always bear in mind when such a case comes under your observation for the first time, that there is sometimes a condition which is known by the name of *pernicious anæmia*. It is called pernicious because the patients, instead of getting well, get worse. The anæmia in such a case is entirely rebellious to all treatment, and the patients continue to become more and more anæmic; to become feebler and feebler until the vital processes are no longer carried on. And when you see these cases you cannot be entirely sure to which of the two classes they belong. The probabilities are always in favor of such a case being one of simple anæmia, because cases of pernicious anæmia are quite rare; but still they do occur from time to time, and it is always proper to bear in mind the possibility of such a condition when you commence the treatment of such a case as this.

Now, what are the indications for treatment? The one indication for treatment is to improve the condition of the blood, and we know by experience that there are three agents

which are of special value for this purpose in such cases as these. These three agents are, iron, oxygen and fat, and you usually do well to combine the administration of all three. The iron and the fat you give by the alimentary canal; the oxygen you give by inhalation—by allowing the patient to breathe oxygen gas. The quantity of iron which these patients require is usually very considerable. The particular preparation of iron I do not think makes a great deal of difference. You have to suit the idiosyncrasy of the patient as to the particular form of iron which you give. It depends upon the condition of the stomach. We will try this girl with the iodide of iron in pill. Let her have one-grain pill three times a day, and then gradually increase the dose until she takes from twenty to thirty grains a day, provided the stomach will bear it. Then while she is doing this, she should carry out the inhalation of oxygen. She should inhale first about five gallons of oxygen a day, and then after she has become a little used to it she can do this with advantage twice a day—five gallons in the morning and five gallons in the afternoon.

The fat can be given usually best in the form of cod liver oil; or if the stomach will not bear this, then you can give it in the form of milk or cream. When this plan is carried out, in a very large number of cases these patients gradually get better; the condition of the blood gradually improves, the strength comes back, and the patients return to a natural condition.

CASE V.—CIRRHOSIS WITH ENLARGEMENT OF THE LIVER.

We have here a man forty years of age, a morocco dresser by occupation, who tells us that his health was good until last July. He was able to work up to that time; then he was taken sick with vomiting, loss of appetite, pain in the epigastric region, and moderate swelling of the abdominal cavity. He was seen by Prof. Clark at that time, and from what he says, I imagine that Prof. Clark told him he had cirrhosis of the liver. He was treated at that time, and he got better. He got so much better that in September he went to work again, and he worked up to within a few days of the present time. Some few weeks ago, however, he be-

gan to find that his health was not so good, that he was again troubled with nausea and vomiting and loss of appetite, with a pain in the stomach, and the stomach also became swollen; and now he says that his feet are swollen. You will observe also that he is quite short of breath, and when I listen to his lungs, I hear sibilant and sonorous râles all over his chest.

The liver is enlarged symmetrically, and downwards in the abdominal cavity. The abdomen is not particularly distended, although it is possible that there may be a little fluid there. There is considerable enlargement of the spleen in addition to the enlargement of the liver. The condition of the man at the present time is a little jaundiced. That, then, makes the history.

Now, what is the matter with him? I do not think we can do better than to agree with the diagnosis which was made last July. I think the man is suffering from cirrhosis of the liver. He is suffering from pain about the epigastrium, which we meet with in some cases of cirrhosis. He is suffering from a catarrhal gastritis which has produced vomiting and a loss of appetite; he has a spleen which belongs to cirrhosis; he has a swelling of the feet which belongs to the same disease, and he has a jaundice which does not necessarily belong to cirrhosis, but which we meet with in some cases.

Besides this, however, he is short of breath, and he has sibilant and sonorous râles. To what would these symptoms be due? "Bronchitis." Is it probable that he has a simple bronchitis? "Emphysema." Yes, he probably has emphysema also. He says he is a morocco dresser. I thought at first that he said he is a stone dresser, and we know that persons employed in shaping stone very frequently get up a chronic bronchitis with emphysema by the irritation of the air passages from the inhalation of particles of stone. But with this man that would not be the case. He would simply have a bronchitis and an emphysema. Then, in addition to that, I think it probable that there is some œdema of the lungs. The râles are very abundant—most too abundant for bronchitis.

You will observe this man's liver is increased in size. He

is an example of that kind of cirrhosis in which the liver is enlarged; in which it is not diminished, and this enlargement when it once takes place is usually permanent. It generally continues enlarged.

The indications for treatment are really rather to relieve the gastritis than to act directly upon the cirrhosis of the liver. For this purpose, I think it would be well for him to repeat what he did last summer—the application of a few leeches to the epigastric region; in addition, I should put him upon the use of rhubarb, ipecac and soda—the ipecac and rhubarb in small doses; the soda in large doses. I should give him powders, each of which should contain a fifth of a grain of powdered ipecac, half a grain of rhubarb, and ten grains of the bicarbonate of soda, and I should let him take one of those three times a day.

CASE VI.—CHRONIC PLEURISY WITH ADHESIONS.—We have here a young man twenty-two years of age, who tells us he has never been strong. He says he has had a weak chest ever since he was a baby. He has been short of breath, and has had some cough ever since that time. He has been able to work, however, as a plumber more or less until within the last year. During the last year he has not been able to work. What he complains of principally now, is shortness of breath. He has a mucous expectoration, not a mucopurulent expectoration. He tells us that a few times he has coughed up a few spits of blood.

He is somewhat, but not very much emaciated. His chest is not symmetrical. The resonance is good over most of the chest, although over one of the lungs behind the resonance is not as good as it is over the rest of the chest. We get the sounds of respiration well enough over the whole of the chest, but we also hear over the whole chest a peculiar, coarse sound, a coarse râle, which accompanies both inspiration and expiration.

Now, what is the matter with this patient? "Chronic bronchitis." That would be one of the first things you would think of, and I presume that he has some chronic bronchitis, but I should also think that that was not the whole of the case, nor the most important part of the case.

“Emphysema with chronic bronchitis.” There may be some emphysema, but that I think is not the real point. “Acute interstitial pneumonia.” I presume that there is some of that also, but, then, that I should regard as secondary. All the things of which you have spoken I imagine are secondary to the real lesion, chronic pleurisy. I think it is a very pretty example of that particular form of pleurisy which we may call for convenience chronic pleurisy with adhesions, where the adhesions go on increasing in extent and in thickness, and involving more and more of the lung without the patient having at any time an acute attack of pleurisy. There may be an attack of acute pleurisy to start it, but after it is once started, it goes on as a simple production of connective tissue. When this condition has lasted for any length of time, as it has in this boy, you are very apt to have secondary changes produced in the lung, which I imagine are already produced in this patient’s lung. But all these are the results of the pleuritic adhesion.

The prognosis in this case can hardly be said to be very good. The adhesions are not such as are very likely to disappear, for they are formed of permanent, organized, connective tissue; they are not fibrine, they are not any recent products of inflammation, but they are perfectly well formed connective tissue supplied with blood vessels, and they are apt to remain. The best you can do is to try to prevent the extension of these adhesions; to try to prevent their continued growth, and at the same time to meet complications if complications arise.

The treatment that is most efficacious it would be quite impossible to carry out with this boy. If it were a person who could do as you might direct, you would turn your attention to the best climate for his special case, and you would pay attention to all the habits of life so as to get his general health into as good a condition as possible; and when you can do this you can make the condition of these patients quite comfortable. But all that, of course, is out of the question here. The best that we can do for him, I think, is to advise the persistent use of counter-irritation over the whole of the thorax, by means of dry cups or iodine; to take some

dilute sulphuric acid for his bronchitis and to improve his appetite—given in twenty drop doses three times a day; and to take either cod liver oil or cream.

ART. III.—**Feeding of Nursing Children.** By EPHRAIM CUTTER, M. D., Boston, Mass.

In the May No., 1880, of this journal, Dr. Wiley gives an important practical article on infant feeding. On page 132, he pertinently says: "How much suffering would be avoided, how much medicine saved, how many lives spared, if children, from infancy to childhood, could have special attention paid to their diet."

I have always thought that the trouble was generally in the deficient lactation or functional derangement of the mammary gland. I have elsewhere (*American Journal of Obstetrics*, April, 1878), in a paper "On Food as a Medicine in Agalaxia," given my ideas as to this subject. Still, to enforce the animus of Dr. Wiley's paper, I may, perhaps, express my opinion that, if man should treat the individuals of his own race as well as he treats his cattle, horses and birds, there would be no difficulty in this respect. It is a matter of history that the æsthetics of the senses govern man in the selection of food. We have naught to say against this—only to suggest that the other views of food, as the chemical, physiological, kinetic, pathologic and therapeutic, should not be ignored. This matter of agalaxia comes under the head of food as a physiologic remedy or promoter of functions. The subject is quite a broad one, and for its fuller development we beg to refer readers to a lecture delivered to the Maryland and District of Columbia Dental Association in September, 1879, and published in their *Transactions*. For our present purpose, it is only necessary to say that the dairymen of this country seem to have solved the problem of getting the full supply of milk that their herds can furnish. Experience has taught them that the food must be ample, in good condition, timely served, and contain all the mineral elements that enter into the constitution of milk. Allowance is made for differences in breeds and in individ.

uals of these breeds; also, the kine must be sheltered properly. The animals have nothing to do but to spend all their nerve forces in the facilitation of the work of the epithelial cells of the mammary glands. They are kept quiet and free from worry and excitement. The dairymen do not consult the love of the beautiful of the animals in the selection of the food for their kine. The animals must eat what is furnished to them or die. I have no doubt, however, that the æsthetics of the animals are gratified, as wholesome food is generally beautiful to the senses. The secret of the feeding of kine to produce a good quantity of milk is, other things being equal, to give *whole* food—that is, food that contains all the elements that the Creator has incorporated into the bodies of his creatures. It is a matter of philological interest that *hale*, *whole*, *health* and *holy* are all derived from the same root. In order, then, to make a perfect being, the diet must contain the entire circle of the elements. Fortunately for cattle, horses and birds, their aliments are *whole foods*. That is, they have suffered no diminution in their normal elements.

But how is it with woman? 'It is a matter of history that their diet is mainly flour, sugar and starch. In the flour, we have an imperfect, unnatural food. It certainly is not a whole food. In milling, for the sake of ensuring whiteness and lightness in the bread, a costly process has been pursued, in which there has been a waste of (Liebig says) three-fourths of the normal mineral salts found in the wheat. The reason of this is, that the gluten cells which are so beautifully disposed over the periphery of the grain of wheat contain coloring matter, and if retained, cause the bread to be brown or black in hue. We cannot explain why society has ordained that *white* should be the *æsthetic color in bread*. It is a matter of taste, but so it is; and the gluten cells that contain so much phosphorus and other mineral salts have to be removed to gratify the behests of society's decision that bread is not good unless it is *white*. To put this more definitely: In Johnson's "*How Crops Grow*," many analyses are found. There it is stated that in one thousand grains of wheat there are 8.2 grains of phosphoric acid: in flour, 2.1 grains of phosphoric acid.

Now, as milk is one of the most remarkable secretions, in the fact that it contains, or ought to contain, all the elements necessary to build up the body, how can we expect the epithelium of the mammary glands of a woman fed on flour to elaborate good milk if fed on an aliment from which three-fourths of the mineral matter has been withdrawn? But this she has to do, as a general thing. She has to make, as it were, "bricks without straw." Is not this a physiological cruelty to her and her offspring? If dairymen did so with their cows, the society for the protection of cruelty to animals would arrest them. I have no doubt, in my own mind, such is the general use of flour, in the form of bread and other preparations, that the function of lactation is greatly impeded by it. For evidence see below.

The effect of feeding on flour exclusively was shown by Magendie years ago. He found that dogs fed on flour alone died in forty days; on no food they died in the same time; while dogs fed on wheat thrived.

Judge Abbott, of Boston, tells of some sailors wrecked at sea and obliged to live on flour alone. The effect was disastrous for them.

Sugar.—This is made up of carbon, hydrogen and oxygen—three elements. It forms a large moiety of the food of man simply because its sweet taste is so agreeable. To be sure it is found in milk, but it would be hard work for the epithelium of the mammary gland to elaborate milk from sugar simply, because milk has over sixteen elements. The bad reputation of cake comes from too much sugar. I do not think the shortening is harmful.

Starch, as such and separated, is much used as food. It also is found in flour; indeed, the trouble is, it is too large a constituent of flour. It contains the same elements as sugar, and in digestion changes into sugar. Now, starch is a valuable and indispensable moiety of food when it is kept to its normal proportion, but when in excess it is not healthy, as seen in the cases of the dogs and sailors. It makes fat, and as such is good food for lactation. But it must not be in excess. It must have mingled with it enough of mineral elements to supply the chemical necessities of milk. It is supposed that the protoplasm of the epithelial cells elects

or selects, if you please, the elements from the blood from which to make the milk. It does not create any new elements. Hence, the necessity of the conditions already stated—that the food must contain all the elements which the chemist finds in the human body.

Another idea is (one laid down by Dr. Salisbury) “that the animal, to be healthy, must have its natural food.” This varies with the animal. Ladies observe this rule for their canaries. Stable-keepers observe this rule with their horses, and dairymen with their kine. But what is the natural food of mankind? Dr. Salisbury says two-third animal and one-third vegetable food. I agree with him, and my judgment is formed from experience. If, then, man should eat the food found in nature in the above proportions, we should find health. Some may dissent from this doctrine, but we two witnesses testify that we have found it true. We do not class flour or separated starch and sugar as natural foods, since such are not found in nature.

From this we say that, if a nursing mother is put on animal food two-thirds and vegetable food one-third by bulk, she will have milk enough to supply the natural demands of her offspring. We have repeatedly tested this in practice, and our object now is respectfully to call attention to this every-day but important matter, so that obstetricians may see to it that their deliveries get the food that is their own natural and inalienable right; that lactation may be a normal and blessed process, and that the coming generations may get a good start in the world with nervous systems well fed, strong and capable of endurance.

Another thing, is it right for nursing women to have so much strain put on them in work during and after gestation? Mares with foal and cows with calf are allowed rest, but how often are women worked night and day close up to confinement, and after going through with severe labors are obliged to drudge again in the cares of a family? Is it a wonder her milk fails?

ILLUSTRATIVE CASE.—A PRIMIPARA HAS TWIN SONS—FEEDS ON THE SALISBURY PLANS—ENTIRELY SUPPORTS BOTH—GAINS TEN POUNDS IN THE FIRST SIX MONTHS.—Miss V. M. I., of Boston, aged about 21 years, married and went

to reside in the State of Maine. She weighed ninety-eight pounds. She was a woman of fine, rare mind, small in size but symmetrical. At the age of seventeen she had a severe illness with typhoid fever, which left her with an obstinate catarrh, which was characterized by offensive, tough, leathery, nasal dejections. This was cured by the application of fuming nitric acid to the site of the ulceration halfway through the nostril. In the course of her first married year she was delivered of twin sons; labor normal. She lived in a rural district, where neighbors feel an interest in such affairs, and she was visited from near and far by interested dames. It is proper to say that the uniform advice in relation to the "suckling" was *not to suckle them at all*, as it was predicted she could not suckle them long, at least. This advice shows, in general terms, that lactation is not always a success, and that nursing-bottles are in use in Maine. Now, the paternal grandfather of the twins was much interested that they should suckle. He therefore consulted me. I told him the sum of what has been here stated. At his request, I gave a type-writer's printed list of things to eat and not to eat. It included all animal and vegetable foods, excluding flour, starch and sugars. The animal food was to be two-thirds, and the vegetable one-third. This list Mrs. I. received, and went on, sustained and strengthened by her father's influence. It was faithfully carried out. At the expiration of six months, one twin weighed seventeen pounds, and the other weighed eighteen pounds. The mother gained ten pounds. They derived all their nourishment from their mother's breasts. They were the pictures of health, and un-failing sources of unmingled delight to all. I think I never saw more domestic happiness in a family than was here. The children, in place of being considered a nuisance, were, indeed, the greatest blessings and well-springs of joy.

This was a severe test for the diet—the straitest I have known. I may fail in some other like cases, but I have never failed in single births to secure an abundant supply of good milk simply by feeding the mother on the same general principles of dairy feeding.

It is unpleasant for women to be compared to cows. But the non-æsthetic nature of this idea should not be allowed to overbalance the teachings of history where it is of the first importance for infants to have good bones, muscles, nerves and organs with which to fight the battle of life.

5 *Somerset street.*

ART. IV.—**Nervous Force and Animal Electricity.** By WORTHINGTON MYERS, A. M., M. D., New York, N. Y.

Nerve force is as clearly demonstrable to the senses as light, heat, electricity, or any other imponderable body; but whether it and they are all distinct elementary fluids, or merely results of certain arbitrary variations in the molecular arrangements of one primitive form of matter, it is not within my province to discuss here. For the question before us, it is enough to state that nervous force, as such, has its distinct existence, and is governed, both as to its production and waste, by certain fundamental laws.

According to the experiments of Helmholtz and Schleske with the chronograph, the velocity of nervous force in man is 97.5 feet in a second. By the employment of the noematochrograph, it has been ascertained that the brain is $\frac{1}{28}$ th of a second in recognizing an impression, and $\frac{1}{28}$ th of a second in telegraphing back that the impression has been received. It occupies the $\frac{1}{20}$ th of a second for the brain to distinguish and *signal* the difference between any two colors presented to the eye, and about the same time to distinguish between two vowels as they are spoken, forcibly illustrating the rapidity of mental perception, and the method in which the operations of brain and nerve are conducted.

To give a familiar example of how this nerve force acts: A man accidentally places his hand on a red-hot iron, and instantly, as he fancies, withdraws it; but what really occurs in that mere "flash" of time? The story has to be carried to the seat of intelligence—the brain—before the hand can be removed. Having received through the sensory nerves a report of the occurrence, it telegraphs by the motor nerves to the muscles of the limb to remove it from the cause of pain, and it is done accordingly; so what seems, at first sight, a simple and instantaneous act, is, in fact, a complex proceeding, occupying, in the message and response, about the thirteenth part of a second of time; and infinitesimal as this period actually is, it embraces within it four distinct and essential acts; 1st, the message to the brain; 2d, its recognition by that organ; 3d, the message back along a different

set of nerves to the muscles of the limbs; 4th, the muscular action itself.

This reflex action, as this process is called, is intimately employed in almost all the physical acts which we perform of which the mind takes cognizance. Thus, all the evacuations of the body over which we exercise control, involve in their performance a reflex action. A sensation of discomfort in the bladder or intestines is carried by the sensory nerves to the centre of intelligence, from which a message is sent to certain muscles to remove the cause by pressing it out of the bladder or bowel, as the case may be, and it is done accordingly. Now, the conditions which are required to produce these and other acts, mental and physical, are to be found, as we all know, in the nervous system.

The existence of certain currents of subtle fluids in the nerves and muscles of the animal body was demonstrated as far back as 1786 by Galvani; but from the doubts thrown on his experiment by Volta and others, notwithstanding the powerful advocacy of Humboldt and Aldini, the discovery was allowed to pass into obscurity, and remained unnoticed until 1828, when Nobili published his discovery of an electric current in the frog. This aroused the spirit of scientific investigation; and twelve years later, Matteneci made known the result of his labors in this direction, which was followed later by Du Bois-Reymond, whose laborious and trustworthy experiments have proved, to the satisfaction of the scientific world, the presence, at all times during life, of electrical currents in the brain, spinal cord and other nerve centres; in sensory, motor and mixed nerves; in the minutest fragment, as well as in the largest mass. This he proved in the bodies of man, rabbits, frogs, pigeons, sparrows, earthworms—in fact, in creatures chosen from all parts of the animal kingdom.

The identity of these currents with electricity has been proved by the fact, that with them fluids—such as a solution of iodide of potassium—have been decomposed, and movements produced in the needle of the galvanometer, while their quantity, strength, direction, etc., have been carefully ascertained. Now, although this animal electricity is not life,

it may be safely reckoned as its lieutenant; it is the power with which the operations of the vital forces are performed, and without which all the operations of the animal economy, from the nutrition of the lowest creature to the intellectual triumphs of the highest order of the genius in man, would be arrested. The importance of this discovery can scarcely be exaggerated; it is the master-key which unlocks the door and lets in the light on many mysteries in which lie important truths heretofore in darkness. Its influence on curative medicine is being felt in its determining with accuracy the causation of disease, and indicating the correct principles in which remedial means must be employed.

The minute structure of brain and nerve tissue consists of longitudinal tubes, containing within them innumerable microscopically minute molecules, which are the true nerve substance. These molecules are endowed with electrical qualities, and vary in their arrangement according to the condition of the nerve. These changes are indicated by sudden variations in the strength and direction of the current.

According to the theory of Du Bois-Reymond, founded on the experiments already alluded to, these molecules of living nerve (and muscle also) are electrified negatively at the two poles turned towards the two ends of the fibres, and positively in the interpolar portion turned towards the sides of the fibres, or else the reverse. According to this view, the ends of the fibres are negative, because the negative poles of the peripolar molecules are turned in this direction; and the sides positive, because the positive interpolar belts of the molecules are so turned, or else the ends of the fibres are positive, because the poles of the peripolar molecules, pointed towards the ends, are positive; and the sides negative, because the interpolar portion of the molecules pointed in this direction are in this case negative. According to this view, the nerve current and muscle current derive portions of infinitely stronger currents, ever circulating in closed circuits around the peripolar molecules.

This theory of the constant flow of the current in closed circuits around the peripolar molecules is the one generally accepted, although somewhat opposed to the views of a re-

cent distinguished inquirer in the same field—Radcliffe. But whether the electric condition be current or static, it does not affect the universally acknowledged fact that the force is there, and by it all the great and small operations of life are carried on.

The forces present in the great nerve centres, as well as in the trunks and dependencies, owe their origin and support to the vital process of nutrition.

In assimilation or nutrition, the nutrient material, containing many different elements prepared from the food by the process of digestion, and carried through the circulation, in the form of blood, to the minute structures which it is intended to repair and renew, bears within itself, as almost everything in nature does, natural or latent electricity. This is given off at the moment of assimilation, and as it is composed of two distinct fluids—the positive and negative—it is decomposed—the negative force going to the poles of the nerve molecule, while the positive attaches itself to the equatorial zone; these again combine as the occasion requires—forming free electricity, which is the force by which nervous influence manifests itself throughout the whole body. The same condition is taking place in the muscles and other structures of the animal body, but these are not within the scope of the present observations.

It will be seen, from the above, that, as nervous influence is the result of nutrition, its generation depends not only on the circulation, but the quality of the blood; hence, whatever impoverishes that fluid, or deprives it of any of its essential elements, deteriorates the material from which the supply of nerve force is drawn, and reduces its power and quality—its tension and volume, in fact.

Now, as nutrition, however perfect, cannot be carried beyond a certain point, the supply of nerve force must have a certain limit, and if more demand is made on brain and nerve centres than they are calculated to meet, the strength and quality of the forces must eventually suffer, and as the process of nutrition itself is directed and assisted by the very force it calls into existence, that essential process is itself materially injured and rendered less liable to furnish the re-

quired supply, so that the whole travels round in a vicious circle. Thus, brain and nerve forces are the result of nutritive processes going on in nerve and brain tissue, these same forces, in their turn, being essential to the nutritive processes. Excessive demand on these forces withdraws the vital stimulus to the nutrition, and impairs the powers of the process—so that it goes on feebly or imperfectly—while a feeble or imperfect nutrition yields only a feeble or imperfect nerve force. It is important that these points should be clearly understood, as without a due appreciation of them it is impossible to fully understand, not only the causes of nervous exhaustion, but the *true* principles on which treatment should be based.

To sum up: four factors go to the production and maintenance of that healthy condition of brain and nerve tissues on which their functional activity depends.

1. A proper supply of the elements which nourish and support them.

2. Perfect assimilation of these elements, and consequently perfect nutrition.

3. Correct arrangement of the molecular structure, and, as a consequence, of the others.

4. The presence of a due amount of electricity.

As these conditions have a mutual dependence on each other, their perfect balance is requisite for the generation and conduction of a full measure of brain and nerve force.

The foregoing observations on nervous force—its mode of generation, its power, attributes and diffusion through the minutest structures of the body—point most forcibly to a close connection with electricity.

However, what is called electricity is only a one-sided aspect of a law which, when fully revealed, will be found to rule over organic as well as over inorganic nature—a law to the existence of which the instincts of philosophy and the discovery of science alike bear testimony—a law which does not entomb life in matter, but which transfigures matter with a life which, when traced to its source, will prove only to be the effluence of the Divine life.

Clinical Reports.

Case of Spontaneous Gangrene in a Young Child due to Thrombosis of Popliteal Arteries, the Result, probably, of Malaria. By J. H. POOLEY, M. D., Columbus, Ohio.

Lizzie Kerns, aged 7 years, brunette, of average size and build for her years. She had always been well and hearty; was going to school—walking, for that purpose, a mile morning and evening.

On *Dec. 5, 1879*, she was taken with a chill, followed by fever and headache, which subsided after a short time. During the succeeding three or four days, she had chills, or chilly sensations, at irregular intervals, and more or less continuous fever. She complained of headache, swelling and stiffness of the knees, inability to go up and down stairs, followed by a sense of tingling, and, later, decided pain in the legs. Thinking she had a light attack of rheumatism, her parents delayed calling in a physician for several days, when her sufferings became unbearable, and she was unable to move on account of pain and stiffness in her legs. They then called in a neighboring physician, who made some simple prescriptions, and repeated his visits occasionally. Just one week from her first chill, a discoloration made its appearance on the dorsum of each foot, and extended up and around the legs, as far as the knee on the right side; on the left, to some distance above the joint. The color, at first a purple mottling, soon became uniform, and exactly resembled the hue of a negro's skin.

She was seen by Dr. A. P. Courtright, of Circleville, Ohio, on December 19th, just two weeks from the beginning of her attack, and was under his care till her death. Her condition when he first saw her, was as follows: Pulse, 130, feeble and irregular; temperature, 104°; respirations, 50 per minute; she complained of severe shooting pains in the legs, and pain in the back. Both legs and feet were discolored as above described, and of icy coldness; toes of both feet dry, hard, shriveled, and immovable, and entirely devoid of sensation. There was mobility at the ankle joints, and the sensation was only partially abolished from the ankles to the knees. She had eaten but little, and had taken no stimulants whatever since the commencement of her illness. The doctor put her on the use of quinine, muriated tincture of iron, and opium enough to relieve pain and procure sleep. He also

ordered her whiskey, beef, eggs, milk, cream, and a plentiful supply of lemons, of which she was very fond. Under this tonic and nourishing course, her general condition improved very much. Pulse fell at one time to 108, full and regular; temperature, $99\frac{1}{2}^{\circ}\text{F}$. Her digestion was good; her bowels moved daily.

I saw the patient in consultation on *Jan. 1, 1880*. At this time, there was a perceptible failure of the vital powers; temperature ran up to 105° ; pulse, 130; respirations, 30 per minute. She lay in a position of dorsal decubitus; and, except for some emaciation, the only noticeable thing about the child was an unnatural brilliancy of the eyes. Examination of the chest gave no evidence of lesions, either in the lungs or heart. She had never had rheumatism—indeed, nothing except mild attacks of ague—the whole region in which she lived being decidedly malarious.

She had at this time no pain in the legs or anywhere else, though she objected to all sorts of movement or examination, either because it hurt her, or, what seemed more probable, because she feared it would. Unless disturbed or spoken to, she simply lay in a condition of complete immobility and apathy. On examining the limbs, I found the gangrene had extended above the knee on both sides, a little higher on the left side than on the right. The toes were quite black, and as dry and hard as sticks; above the feet, the color was that of a negro, which, at this age, and in these parts, is not quite black. Over most of the surface, the skin was soft and supple; there were, however, several large patches where it had undergone parchment induration. At the upper limit of the mortification, there was, on both sides, an irregular, shallow gutter of demarkation, filled with stinking ichor, but no inflammatory redness or swelling above it.

An unqualifiedly grave prognosis was given, and advice to persist in the treatment already instituted, together with such disinfectants as might be found suitable to the case.

Her condition gradually grew worse in every respect, and she died January 17, 1880—six weeks from the date of the initial chill.

Autopsy.—Examination of the limbs only was permitted. Sloughing at the line of demarkation had become quite extensive—almost entirely encircling both thighs, with large collections of pus in the popliteal spaces—the arteries alone resisting the general destruction. The dissection was begun in the upper third of the thighs, tracing the arteries until they divided into the peroneal and posterior tibial. An oc-

clusion, by a firm thrombus, was found in both arteries, at almost exactly the same point, viz.: in the popliteal, including all that portion between the superior and inferior external and internal articular arteries. The cord-like feeling of the vessel extended further up in the left leg than in the right. The arteries below the point indicated were empty. The integument of the legs was universally hard and brawny; the muscles were in a state of perfect preservation, and of a red color. This is remarkable, when we take into consideration the fact that no blood, or, at least, very little, could have reached the parts for five weeks. This was, no doubt, owing, as suggested by Dr. Courtright, to the fact that they were hermetically sealed by the condition of the skin, and the shutting off of fluids from above.

Spontaneous gangrene is sufficiently rare, especially in a young child, to deserve a record. The extensive character of the mortification, and its somewhat protracted course, also add to the interest of the present case.

Mr. W. Fairlie Clark, in his recently published *Manual of Surgery*, mentions a case that occurred under his care, in a child eleven months old, who was recovering from an attack of measles. It only involved the left foot, which dropped off on the thirty-second day, and the child made an excellent recovery.

In our case, no cause whatever could be assigned, except the very problematical one of malarial cachexia.

Ulceration of the Œsophagus and Aorta, from a Foreign Body in the Gullet. By JAMES L. MINOR, M. D., Late Resident Surgeon St. Peter's Hospital, Brooklyn, N. Y.

M. C., æt. 25, born in Ireland; occupation, clerk. The patient, about a year ago, presented himself at St. Peter's Hospital, of this city, with the following history: Two weeks previously, while at dinner, and in the act of swallowing a bolus of food consisting of mutton-chops, the mass lodged in the œsophagus, giving rise to a sense of impaction and fullness, with pain at the root of the neck and irritability to swallow. Relief not occurring spontaneously, surgical aid was sought. The doctor consulted diagnosed foreign body in the œsophagus, and determined upon the passage of a probang. The instrument was passed down the gullet several inches, and an obstruction was met. Slight force

was required to overcome the obstruction, and the object was felt to move down the œsophagus, causing a little pain in doing so; which the patient considered more than he desired to undergo for so "trivial" a cause. He refused further operative interference, and left the surgeon with an idea of finding aid more in sympathy with his own feelings. The operation was not devoid of benefit, as the patient was able to swallow, and the pain was less intense. The sensation of the foreign body, however, still remained. After the lapse of a few days, the patient visited the physician again—being in the same condition that existed when last seen. The doctor decided upon the passage of a probang while under ether, but was prevented again by the patient, who, after getting partially etherized, arose from the bed, and positively refused a pursuance in the treatment, and left the doctor in high disdain.

When seen at the Hospital, two weeks after the accident, he was emaciated, and bore a haggard expression. Only liquid food could be taken and swallowed in small quantities, which caused pain in the root of the neck in the passage down the gullet. A gurgling sound, on auscultation, was thought to have been detected between the scapulæ when liquids were swallowed. Pain is present in the upper back part of the thorax, constant and gnawing in character. The diagnosis was not doubted. It was supposed that a piece of bone, or other hard material, had become lodged in the œsophagus. From the persistence in the symptoms, it was feared that inflammatory reaction had set in; and it was deemed wiser to withhold surgical treatment, so long as the symptoms remained as they were, hoping that nature would accomplish, aided by our endeavors, more, with less danger, than the surgeon would be justified in attempting. The general condition called for stimulation and tonics, with liberal nutritious food. In order to hasten the removal of the bone, which we expected was present, sulphurous acid was ordered, because of its action in disorganizing bony tissue, and opiates were given for the relief of pain. He passed a more pleasant night than usual, but had an undefined feeling of enormity, causing great restlessness. He visited the water-closet, and while sitting on the stool, jumped up, saying in excitement, that something had given away in his chest. He experienced a sensation of oppression and suffocation, followed by profuse hæmatemesis and death.

An autopsy was held in the afternoon. The only matter of interest was a tumor, the size of a hen's egg, connecting

the aorta and œsophagus, situated about the fourth or fifth dorsal vertebra. The tumor proved to be extravasated blood and recent inflammatory material. Further examination showed that openings existed in adjacent sides of the aorta and œsophagus; and along the floor of these openings, a splinter of bone was seen, about one and a half inches long, and the size of a small darning needle.

The cause of death was undoubtedly due to the ulcerative process that established itself around the small piece of bone, which could probably have been removed during the early stages of the trouble if thorough surgical treatment had been submitted to. Had operative interference been attempted after the patient's entrance into the Hospital, it would probably have resulted in the culmination of causes, which a few hours later effected the death through the natural course of pathological action. Such a result would have reflected discredit upon the surgeon who performed the operation, all of which would hardly have been removed by a *post-mortem*.

Occlusion of the Canal of the Os Uteri—Operation with the Knife Successful, and the Internal Use of Carbolic Acid, together with the Coating of Ligatures with Carbolized Wax, for the Prevention of Septicæmia. By T. B. WILKERSON, M. D., Young's Cross Road, N. C.

Mrs. E. L.—a wealthy lady of Roxboro, N. C., married, æt. 24 years, the mother of two children, of a nervous temperament, with a hereditary, tubercular diathesis on the mother's side—consulted me in May, 1880, in regard to a uterine deformity. She suffered from all the nervous phantasia that the female system is heir to, dating the beginning of her troubles from the birth of her last child, six years ago, at which time there was a rupture of the left side of the external os uteri. Soon after the termination of her confinement, the following symptoms commenced; and from that time to the date of the operation scarcely an hour out of the twenty-four during each day has she been free from pain.

These paroxysmal attacks were liable to take place at any moment, beginning with a premonitory darting pain in the lower portion of the pelvic region, extending through to, and along the middle of, the sacral region. There were also a slight hacking cough, intense dyspnœa, with a troublesome

smothering sensation, as if a heavy weight was resting on the thorax, excruciating pain in the præcordial region, nausea and headache. To quiet these attacks, heavy doses of nervous sedatives and opiates were necessary. These phenomena were greatly heightened at the commencement of each menstrual period, attended then with severe bearing down pains at the bottom of the abdominal cavity—closely imitating the throes of labor; and notwithstanding these strong and expulsive efforts on the part of the womb, hardly a stain of the monthly flow could be discerned.

The patient was placed in Dr. Sims' position, and with his speculum introduced, a good view of the parts was given. The cervix presented an appearance as if it had been clearly excised, leaving no lips, and the cervical canal was thoroughly occluded. On the outer left side, about one-quarter of an inch above the marginal edge of the cervix uteri, was a very minute fistulous opening that, with care, a small sound—the size of an ordinary pocket probe—could be made to enter for one and a quarter inches; beyond this point, the instrument could not be passed. The probe, when in position, formed an angle a little short of a right angle, with the centre of the cervical neck. The uterus and vagina were exceedingly sensitive—there being a morbid hyperæsthesia of the whole tract.

After a careful examination of the parts, finding that there had been vicarious menstrual efforts from the lungs and stomach, and being fully convinced that these grave symptoms were traceable, in the main, to the abnormal deformity of the womb, and that the existence of this disease was imperiling life, the patient was made aware of the dangers likely to arise during and after the completion of the proposed operation. Being an intelligent lady, well posted in regard to her condition, she readily agreed to risk the result.

On the first day of June, 1880, assisted by Dr. J. S. Fuller, the patient lying on the left side, a duck-bill speculum was introduced under a good sunlight, without the use of an anæsthetic (patient being averse to the use of chloroform). After having given a good dose of brandy with ten grains of sulphate of quinia, a long tenaculum was engaged in the upper anterior surface of the neck; a small grooved director was then carefully passed into the fistulous tract on the left side, until its point was arrested on the opposite surface; then a narrow, conically-shaped knife was passed along the groove of the director to its terminal point. The knife and guide were then carried to the right, a little beyond the cen-

tral point of the neck, the knife dividing in its passage the intervening tissues of the cervix, in a transverse medial line—making an incision one and a quarter inch in length, and three-quarters of an inch in width at its lower part. Whilst the knife was held stationary, the director was carried on-wards to the fundus. This was done in order to be certain that the incision corresponded with the normal canal. The director then being slightly withdrawn, the knife and guide were passed up until the cavity of the womb was reached—slightly nicking the constricted canal. These instruments being withdrawn, and their positions reversed, the left side was treated in a similar manner. This left a straight, cone-shaped canal leading to the uterine cavity. After arresting hæmorrhage, an intra-uterine stem, two inches in length, and about the size of a large gum male catheter, was inserted into the made canal—the stem being held in position by one of Fowler's pessaries, with a piece of black silk cemented on the under surface of the eup—these instruments being first coated with carbolized glycerine. The patient was confined to her bed on her back for ten days. The stem was allowed to remain in six days, and a large-sized gum catheter was passed every third day afterwards until the time of the next monthly period. Internally, immediately after the operation, she was given, thrice a day, the following pill :

R̄ Carbolic acid.....gtt. xij
 Pulv. opii.....gr. vj
 Ferri sulph.....gr. xij

M. Make twelve pills.

The vagina was thoroughly washed out twice a day with carbolized lead and opium water. No unpleasant inflammatory symptoms supervened to endanger the final result, but an entire subsidence of the nervous phenomena, together with a quietude of mind and body, ensued.

The patient made a good recovery. She has passed one monthly period with a free discharge of the menstrual flux, without pain. The new outlet remains patulous, without any contraction in its calibre.

This lady had been under the care of a number of distinguished medical gentlemen, amongst them the late Dr. J. P. Mettauer, Dr. Watkins, now of Rochester, N. Y., and my distinguished friend, Dr. Hunter McGuire, of Richmond, Va.

This case was one of a rare group of deformities met with in this organ. A partial agglutination of the lips of the os uteri

is frequently met with, but an entire obliteration of the normal canal to the extent mentioned in this case, in a married lady—one who has borne children—is seldom met with. The great morbid irritability of the womb and vaginal track, together with the nervous excitement engendered in the general system, render a prognosis exceedingly doubtful; but thorough quietude of the body in a recumbent position, and the fixing of the womb by means of a properly-adjusted cup pessary, so as to prevent any to-and-fro movement of the intra-uterine stem against the sides of the wounded canal, add much to the chances of a favorable result; for upon the proper maintenance *in situ* of this intra-uterine instrument, depends the future hope of a patulous condition of the organ.

The introduction of carbolized dressings into the domain of surgery robs these operations of half their terrors; and the internal use of carbolic acid to destroy any latent septic germs, or any in transit towards the wounded point, lessens greatly the dangers of purulent infection. So fully convinced am I of the practical therapeutic value of this medicine as a destroyer of zymotic poisons, that I invariably administer it prior to, if possible, if not, immediately after, every surgical operation.

Another valuable preventive of septicæmia, is the proper preparation of the ligatures. Not only should they be carbolized, but they should be coated with carbolized wax (ten drops of carbolic acid to the ounce of bee's wax, melted, incorporated and allowed to cool). This material throws an additional antiseptic shield around the ligatures that will protect it until it is quietly encysted. Thus prepared, it may be placed around an artery, the ends of the strings cut short, and the loop left in the wound to be cared for by nature. The carbolized ligature, coated with ordinary wax, will, in some instances, set up undue irritation—the wax acting as foreign matter, thus forcing nature to discard the loop. If the carbolized ligature be used non-coated, there might be too early an absorption of the antiseptic, before nature had time to care for it, leaving the string unprotected to act as a dangerous excreant. In a series of *post-mortem* examinations on

the lower animal, long after the ligature was used, the fact was clearly shown that the carbolized waxed ligatures remained quietly imbedded in its cyst. There was no evidence to show that any inflammation had been lighted up in the sac.

Correspondence.

How to Administer Nauseous Oils.

Mr. Editor,—Malt liquors, as Dr. Duffy, of Norfolk, Va., in the June No. of the *Monthly* claims, are undoubtedly good menstrua for the administration of oils. But as they are not always at hand when it is desirable to administer oils, I would commend a method which I have practised for several years.

A tea-cup is dipped in cold water (ice-water is best) so as to have its entire internal surface and its edge well wetted. A small quantity of water, simply enough to float the oil, is left in the bottom of the cup, the oil carefully poured in the centre, and a little nutmeg grated on it. The water prevents the sticking of the oil to the cup, lips or mouth; the cold blunts the sense of taste, and the nutmeg masks the odor, which, to some delicate persons, is so offensive as to be one of the chief obstacles to its administration. The tea-cup is far preferable to a tumbler for the preparation of the dose. I might add, that I have taken this dose, as one of the few potions that I have swallowed in the last ten years, and therefore know whereof I speak.

SAMUEL WOLFE, M. D.

Skippach, Pa., June 17, 1880.

Original Translations.

From Spanish and French. By CHAS. R. CULLEN, M. D. (P. O. Richmond, Va.), Heprico Co., Va.

Quarantine of Buenos Aires Against Yellow Fever.—The authorities of Buenos Aires are making unusual exertions to prevent the scourge of that city from its usual visitation. As the yellow fever is generally introduced by vessels, it is

decreed that the quarantine shall be rigidly enforced. 1. The passengers and crew of every vessel shall have their clothes washed and ventilated. 2. The cargo shall be fumigated by nitrous vapors, shutting down the hatches for two hours at a time, and opening as seldom as possible. Lime water and other disinfectants shall be freely used.—*Revista Medicina Quirurgica*, 1880, No. 15.

The Ninth Article on Fornication, and its regulation by the State authorities, show the importance of the subject, but, so far, it is admitted that the law can do but little towards removing this great evil. In New Mexico, Old Mexico and South America, generally there is no distinct line in society between virtuous people and the opposite; and as long as this is the case, the law is a dead letter against the social malady. When in Santa Fe (New Mexico), an old American resident of seventeen years' residence said he did not believe there was a virtuous woman in the town in a population of seven thousand people, and also that there was not an honest man. A United States naval officer, writing from Brazil, wrote that the mixed population of whites, negroes and Indians was so degraded he thought the Chinese could improve the breed.—No. 15.

Simple Test of Death.—In the *Diary of Medicine*, of Bordeaux, Dr. Peyraut says, that if Vienna paste be applied to the body of a living person the eschar is gray or dark in color, but if dead, yellow.—*Ditto*.

Treatment of Psoriasis and Cutaneous Affections Generally by Pyrogallic Acid made as follows:

R_y Pyrogallic acid..... 10 to 25 parts.

Lard.....	100	“	M.
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S. Frictions night and morning.

According to the *Dublin Journal*, recommended by Agmandishan Vesey, the same acid is good in all internal hæmorrhages.—*Ibid.*

Cure of Obesity by the Waters of Bride's Savoy.—Dr. Philbert has obtained several successful results by the use of these waters; and following the directions, we have obtained a cure in Buenos Aires in the person of a Cajuchin Monk in the convent of St. John. Internally, he was given five grammes (75 grains) sulphate soda every morning. Under this treatment, the religious duties of the convent could be attended to, which was impossible when overloaded with flesh.—No. 16.

Hypertrophy of Tonsils.—A very simple remedy has been proposed by St. Germain to lessen the swelling of the glands.

By the aid of a pair of forceps, a piece of lemon peeling is applied locally twice a day, and in fifteen days the cure is effected.—*Ibid.*

Congenital Amaurosis Spontaneously Cured on the First Appearance of the Menstrual Function.—A lady of twenty-two years of age consulted Dr. Santos Fernandes. She is of good form, nervous, lymphatic temperature, and was born blind. Her parents having lost all hope of having her sight restored, she became resigned to her fate. When about fourteen years of age, the girl one morning was able to see a little, the objects being dimly visible. Being much astounded, she returned to bed, and her mother found her clothes bloody. Her neighbors flocked to see the girl restored to sight. When presented to Fernandes her sight was perfect. Whether a similar case can result in a similar manner remains to be seen.—*Revista Medecina Cirurgia*, Madrid, No. 84.

Treatment of Urinary Calculi by Maize.—Dr. Castan, Professor of the Faculty of Medicine of Montpellier, reports that lately the concoction of Indian lam (maize) is of great efficacy in relieving patients suffering from these attacks, but it is difficult to explain whether the good effects are produced as diuretics or as local anæsthetics. An infusion is made, and several cups drunk during the day, and after drinking large calculi are expelled, after which the pain ceases.—*Ibid.*, No. 84.

Inconveniences of Tincture of Arnica in the Treatment of Wounds.—Dr. Donaud, in the Medical Society of Bordeaux, notices the bad effects of applying tincture of arnica to simple wounds from inflammation spreading to surrounding parts. A German surgeon notices also the same result.—*Ibid.*

Curious Observation and False Pregnancy.—Dr. Arvo relates the following: A girl of nineteen years of age ran off with a lover, was gone a few days, and returned to forgiving parents. A short time afterwards, symptoms of pregnancy appeared—sickness, vomiting, aversion to food, etc. With these symptoms, the menstrual flow ceased, followed by an increased size of the abdomen. Appetite returned, and gradually swellings of feet and ankles appeared. During the ninth month, pains came on, and suddenly there was a discharge of a large quantity of hydatids, weighing eight pounds and nine ounces, which was not followed by either lochial discharge or swelling of the breasts.—*Ibid.*, No. 86.

Non-Delivery of the Placenta.—At a meeting of the Royal Academy of Medicine of Madrid, 24th January, 1880, Dr. Iglesias reported a puerperal case, in which the placenta could not be delivered, though four physicians made the effort—Calvo, Martin, Rubio and Cortejarena. He stated that the patient ought not to be left until the placenta was removed, to which Dr. Iglesias replied that it was an impossibility, but that no bad result followed.

Therapeutical Uses of the Bromides.—Rossenthal gives the following summary on this subject:

Bromide of Potassium ought to be frequently suspended, because it produces loss of tone in the stomach, debility retards and creates precordial pain and cerebral disorders; while it increases, in small doses, the appetite, in large doses, it disturbs it, and consequently should be given largely diluted with milk.

Bromide of soda is a preparation very sweet, and better tolerated by the stomach, and should be given in preference to nervous people, old people and children. It is useful in convulsions, insomnia, spasms of the glottis, etc.

Bromide of ammonium is good in epilepsy and affections of the glottis, but not superior to the other bromides.

Bromide of camphor moderates the action of the heart, and is good in alcoholism, in doses of from 15 to 30 grains. In nervous cases the doses are larger.

Bromide of zinc cannot be given in pills, and is inferior to the other bromides.—*Ibid*, No. 87.

Treatment of Typhoid Fever in Children.—Dr. Archambault, in his lecture, recommends the expectant treatment. He is opposed to purges as increasing the disease—particularly the diarrhoea, and the debility—and also irritating the glands of Peyer. Medication is always the same, or even satisfactory. Nourishing drinks and a small quantity of wine, Malaga, and the following medicine (a small potion occasionally):

Gum julep.....40 parts.

Lemon syrup.....10 “

Brandy.....15 “

Extract quinia.....1 “

Watch the symptoms, and meet them as they arise with appropriate remedies, making use occasionally of ipecac, laudanum, bromide of potassium and Seltzer water. Use foot-baths, and sponging the body during fever. If cerebral symptoms present, give coffee, tonics, and occasionally chloral; also, manzalla and lime water.—*Med. and Chir. Pract.*

Dyspepsia of Phthisis.—Dr. Lebert prescribes the following effervescing powder for the dyspepsia of phthisis :

Lactate of iron.....	60 grains.
Bicarbonate of soda.....	180 “
Tartaric acid.....	45 “
Sugar.....	60 “

M. S. Put in a tight bottle, and give a spoonful in sweetened water twice a day.—*Ibid.*

Analyses, Selections, etc.

Prepared by HUGH M. TAYLOR, M. D., Demonstrator of Anatomy, etc., Medical College of Virginia, Richmond.

Gynæcological Practices.—Dr. Wm. Goodell, Philadelphia, advises, in incomplete *perineal laceration*, an immediate operation. In complete lacerations, however, the primary operation has not proven as successful as the secondary. In the primary operation, in order to put in the stitches accurately, he recommends that ether be given, and that a sponge be placed high up in the vagina to stop the flow of the lochia which embarrasses the operation. The stitches are applied as in the secondary operation, and are to be only twisted together. In the secondary operation, if the sphincter ani is involved, he always embeds the first two stitches. On the eighth day, all of the stitches are removed, except the lowest. The fæces are then softened by an injection of warm sweet oil, and the bowels are moved twelve hours later, by an ounce-dose of castor oil, aided, if necessary, by an injection. After the bowels have been emptied, the remaining stitch is removed.

He removes *fungous vegetations of the endometrium* either with the dull or with the sharp curette; or, if the os is sufficiently patulous, by means of a small fenestrated polypus forceps. The uterine cavity is then cleansed with a saturated tincture of iodine, provided the cervical canal is narrow. But when it gapes, he prefers Monsel's solution. In the former condition, he avoids the use of styptic iron, because it forms clots which cannot easily be expelled by the womb without giving rise to much pain. The iron is the more efficacious treatment of the two.

Non-specific and acute cases of *vaginitis* he treats by such hot and emollient injections as flax-seed or slippery-elm bark

tea, to which laudanum is added in the proportion of 5ij of the laudanum to ℥ij of flax-seed. When the inflammation has subsided, vaginal suppositories, containing five grains of iodoform are ordered twice or thrice daily. In the chronic forms of this complaint, suppositories of tannin, or of iodoform, or long tampons of absorbent cotton, are employed which have been dipped in astringent solutions of acetate of lead and of zinc, to which laudanum has been added.

He treats a *conical cervix* by forcible dilatation with a strong uterine dilator, or by lateral section with a hysterotome. If the cervix is sickle-shaped, he performs the section of the posterior lip. The subsequent treatment consists in such local applications as tend to keep the parts from closing up.

Prolapsed ovaries are best managed by the knee-breast posture, and by the administration of such alteratives as tend to lessen the congestion of these organs. Among these, he prefers a combination of the chloride of ammonium and bichloride of mercury. Sometimes large doses of bromide act very happily. This dislocation is due, in a great measure, to the congestion of the sexual organs from the use of measures to prevent conception, or from masturbation. Pessaries are rarely useful. Cutter's bulb is the best. This condition is a frequently over-looked cause of many pelvic aches and pains which are generally attributed to the womb.

In incurable cases of *vesico-vaginal fistula* where the urethra has been destroyed, he has twice succeeded in wholly relieving the patient. In one instance, this was done by making an artificial recto-vaginal fistula; and in the other, by leaving an already existing one intact and closing up the vulva. When the urethra is unimpaired, he closes the vagina as high up as possible, so that the marital relations shall not be interfered with. If the case be an uncomplicated one, he uses shot for twisting the wire, because they form permanent adjusters of the wire and prevent eversion of the edges of the wound.

In *cancer of the womb*, whenever practicable, the whole cervix is removed by either the hot or the cold wire. If this cannot be done, remove the malignant growth by scraping or by means of the gouge-foreeps; the surface is subsequently cleaned with the thermo-cautery. This radical treatment is reinforced by subsequent applications of the ethylate of sodium.

In these operations upon the cervix he finds that injections

of ordinary vinegar form an excellent means of controlling any embarrassing bleeding.

Transient cystitis in the female, dependent upon obscure causes, he treats by rectal suppositories, containing one grain each of the aqueous extract of opium and extract of belladonna. In obstinate cases, he warmly advocates the dilatation of the urethra throughout its whole extent by the introduction of the forefinger. Therapeutically, atropia is the most efficient remedy. It should be combined with alkalies or acids, according to the condition of the urine. Injections of a two-grain solution of quinia into the bladder, together with large doses of the same by the mouth will often improve the condition of the patient. In very bad cases, perhaps the most efficient injection is one of nitrate of silver, beginning with weak solutions, and increasing their strength daily until twenty grains to the ounce of water are tolerated. These strong solutions should not be allowed to remain in the bladder longer than ten or fifteen seconds. All malpositions of the womb must, of course, be rectified, especially if they have any bearing on the disease.

In *ovariotomy*, a five per cent. solution of carbolic acid is used in the spray, and all instruments and sponges are immersed in a solution of the same strength. The pedicle, he treats by the intra-peritoneal method. The peritoneum is invariably included in the stitches which closes the abdominal wound. Where the adhesions are numerous, he uses the glass drainage tube. The dressing consists of salicylated cotton. The after-treatment consists in opium enough to allay pain, and in one tablespoonful of milk combined with lime-water, every three hours for the first forty-eight hours. As soon as the flatulence escapes from the bowels, the supply of food is increased. The patients are prepared for the operation by a soap bath on the previous evening, and by the administration of one grain of opium at bedtime. On the following morning, one grain of opium and ten grains of quinia are given. He prefers to operate at eleven o'clock in the morning, as being the time when the vital forces are at their best. When high temperature ensues, an ice cap is an efficient means of lowering it. Puerperal fever he invariably treats by intra-uterine injections of a warm two per cent. solution of carbolic acid. Ten grains of quinia are given every four hours until marked cinchonism is produced. Morphia is administered in doses sufficiently large and as frequently as necessary to relieve pain. The whole surface of the ab-

domen is painted with the compound tincture of iodine, and covered with a large mush poultice. If it is deemed necessary to open the bowels, large doses of calomel are used.

He treats *sore or chapped nipples* by the glycerole of the nitrate of lead in a solution containing from twenty grains to one drachm to the ounce; or by a mixture of two drachms of iodoform to the ounce of balsam of Peru. The balsam is used because it disguises the smell of the iodoform.

In *vaginismus* he has never yet been compelled to resort to the deep posterior incision of Dr. Sims, although in two cases he has been obliged to snip off irritable carunculæ myrtiformes. He treats this disease precisely as he would an anal fissure. If the local spasm does not yield to constitutional treatment, and to vaginal suppositories of morphia, belladonna, carbolic acid and iodoform, he puts the woman under ether and forcibly stretches the vulvo-vaginal opening, either by means of the two thumbs, or by the fore and middle fingers of each hand.

He *distinguishes ovarian cysts from dropsy* in the following manner: In a case of ascites, the abdomen, when the patient is placed on her back, is flat on top, and bulges out at the sides; in ovarian cysts, the very opposite is true. In ascites, the intestines float up to the top, and resonance is elicited upon percussion; in ovarian cyst, percussion gives only flatness. There is, however, a certain way of settling the question of the existence or non-existence of ovarian cysts, and that is by means of the aspirator. The fluid of ascites is straw-colored and limpid; that of a polycyst is thick, dark and turbid from disintegrated blood-corpuscles; that of an oligocyst is usually of a milk and water, or of a light brown color; that of a monocyst is perfectly clear and limpid like spring water. The discovery of the Drysdale ovarian cells in an aspirated fluid, he thinks is proof positive of its origin.—*Med. Record*, Nov., 1879.

Acute Orchitis Treated with the Roller Bandage.—Dr. L. A. Dugas, of Augusta, Ga., reminds us that the indications for treatment in acute orchitis is to overcome the tension to which the tissues are subjected, and this is best effected by compression. If it is attempted by means of adhesive plaster, the inconvenience of its use more than counterbalances its advantages. The scrotum must be shaved (no easy matter), and the plaster taken off and replaced at least once a day. This is extremely painful in consequence of the chafing and pulling of the skin. The roller bandage has none of these objections. Dr. Dugas provides a bandage of bleached shirting an inch wide and four yards long, which is to be imbued

with starch just before being applied. The patient lying upon his back, with his knees separated, the surgeon should seize the affected gland with the left hand in such a way that the neck of the tumor will be firmly encircled by the thumb and index finger. This puts the skin of the scrotum on the stretch, and allows the roller bandage to be passed around the neck of the tumor three or four times, and then over the tumor in such a manner as to affect its uniform compression. This procedure must necessarily be left to the skill of the surgeon. As soon as the bandage has been completed, the patient will express himself as completely relieved from pain. The patient should be kept in bed, and, if possible, have the bandage re-applied morning and night, as it will usually be then very loose in consequence of the subsidence of the tumefaction. No other treatment is needed, and in a few days the swelling will be entirely removed; but the bandage should be continued a little longer to prevent relapse.—*New Orleans Med. and Surg. Jour.*, Jan., 1880.

[At first sight, the application of a bandage on such a mass as the inflamed testicle, would seem almost impracticable, but we have tried it, and can endorse the method as a good and easy one.—H. M. T.]

The *Berberis Aquifolium*, or holly-leaf barberry, is a recent acquisition to our materia medica, and is one of the new remedies really worthy of confidence. It combines two important properties—tonic and alterative—in the most perfect and available proportions. In exerting its tonic properties, the manifestation is almost instantaneous; yet, not like the action of quinine, or any of the preparations of the bark of cinchona. It seems to possess the wonderful power of revitalizing the flagging powers of the system in a very marked degree. The vaso-motor system is influenced first; and straightway the vascular system responds to the wonderful influence of the drug. The hepatic and gastric secretions are aroused, and poised at the normal medium, while the whole physical economy falls into line with the happiest and most enduring results. For about a year the writer has been testing it in syphilis, chronic diseases of the liver, stomach and bowels, and a large variety of skin diseases, but especially in eczema and psoriasis. Its use in syphilis alone should give it great prominence with the profession. It possesses the wonderful power, unaided and alone, of curing syphilis; and it seems to be most available in those old, broken down cases which mercury and iodide of potassium have failed in. Possessing, as it does, the power of exalting all the functions of the recuperative system, and at the same time, antidoting

the syphilitic virus through the agency of a constituent element, or curative property inherent in its composition, as quinine in Peruvian bark; it naturally follows that we have in this indigenous remedy the great desideratum in Hunterian chancre. The author wishes to impress the fact that his repeated experiments have proved it to be most useful in those cases with the syphilitic cachexy well defined, such as are usually met with in public hospitals, and at watering places. The benefit he has derived from its use in syphilis, eczema and chronic hepatitis warrants his writing in this enthusiastic way.—J. F. Hammond, M. D., Atlanta, Ga., in *N. Y. Eclectic Med. and Surg. Jour.*, Jan., 1880.

Treatment of the Various Forms of Consumption.—Dr. Roberts Bartholow, of Philadelphia, assumes that three forms of pulmonary consumption are generally recognized, viz., chronic catarrhal, or caseous pneumonia, which is an essential inflammatory disease; chronic tuberculosis, with special direction to the pulmonary parenchyma, which is a diathetic malady; and fibroid phthisis, which is a chronic interstitial pneumonia ingrafted on chronic bronchitis. This classification makes it obvious that our therapeutical methods must be guided and controlled by the pathological conditions. Certain general principles applicable to all forms demand attention. These are climate and personal hygiene. In regard to climate, it is unnecessary to go beyond the limits of the United States, for within them we find the utmost variety. The Bowditch generalization, which establishes the fact that there is a constant ratio between the number of cases of consumption and the amount of water—rainfall and collections of water in streams, ponds and lakes should not be lost sight of. Lombard's elaborate Atlas of Medical Geography shows how large a part excess of moisture plays in the geographical distribution of phthisis. All along the seacoast are traced the deeply shaded lines, whilst in the elevated interior regions the mortality has disappeared. Next to dryness of soil and climate as a remedy for consumption, is elevation. This fact stands out as conspicuously in the great Atlas of Medical Geography as the previously considered influence. Uniformity is only less important. Applying these principles to the question of a climate for consumptives, the writer places first on the list the great plains and plateaus of our interior continent; next, certain parts of California; then a limited district, of which Aiken, South Carolina, may be regarded as the centre; and lastly, the upper lakes and Minnesota, and the Red River of the North. Among the questions of hygiene, he thinks alimentation is

the most important. It is an established fact that a form of dyspepsia almost universally precedes phthisis. It is a great mistake to overburden the weak digestive organs with hydro-carbons until they are put in a condition to assimilate them. A period of rest to the stomach by a minimum diet will enable the organ to recover from the morbid state, and will induce a greater appetite. Put the patient on milk for a week or two, and you will have a foundation to build upon with richer food. To remove the condition of gastro-intestinal catarrh, arsenic, two drops, three times a day, probably stands first. Scarcely inferior to it stands a combination of iodine and carbolic acid.

R_y. Tinet. iodini.....5j.
Acid carbol.....5ss.

M. S.: 1 to 2 drops in tablespoonful water 3 times a day.

The mineral acids do good when there is merely a flagging of digestion. Strychnia, dissolved in diluted muriatic acid, makes a useful combination, for strychnia is probably the most effective agent which we possess for arresting the vomiting of phthisis. As soon as the assimilative powers are restored, give cod-liver oil, and aid its digestion by the administration of malt liquors or alcohol in some form. It should be given after meals to be digested and assimilated with other foods. It is a great error to administer the oil on an empty stomach, or some time before the meal, because it will spoil the appetite, and keep the stomach at work during its period of repose. Furthermore, the quantity of oil taken should scarcely exceed a teaspoonful, for little more can be assimilated at one time. To stop the cough, nothing can take the place of opium. The most useful of the preparations and derivatives of opium is eodeia. The grounds of its use are that, it has a selective action on the pneumogastric nerve, allaying irritability of its peripheral distributions; it is calmative and hypnotic, and, compared with morphia, is less excitant and less nauseant. It may be combined with strychnia when there is vomiting, and with atropia or piero-toxine when the sweats are profuse. The following are examples:

R_y. Codeiæ sulph.....gr. x.
Ext. hyoseyami.....5j.

M. Fit. pill No. xx. Sig. One every four hours.

Or—R_y. Codeiæ sulph.....gr. xvj.
Strychnia sulph.....gr. j.
Atropia sulph.....gr. $\frac{1}{8}$.
Acid sulph. dil.....5ij.
Aquæ.....5j.

M. Sig.: Ten to fifteen drops three times a day.

Carbolic acid exercises no little influence over cough, expectoration and fever, and is most serviceable in allaying reflex vomiting. It is best given in solution as follows:

R. Acid carbolic.....gr. viij.
Aquæ lauro-cerasi, aquæ..... \overline{aa} 5j.

M. Sig.: A teaspoonful every four hours.

Carbolic acid is especially indicated in the fetid expectoration of bronchiectasis. In the cough of fibroid lungs, and in the stage of deposit before softening in caseous pneumonia, he has had excellent results from the administration of iodide of ammonium in the wine of tar.

R. Ammonii iodidi.....5ij.
Vini picis liquid, syrup. tolu..... \overline{aa} 5j.

M. Sig.: A teaspoonful.

The treatment of night sweats is interesting because of recent advances, and important because of the baleful influence of the sweats over the progress of the disease. Until the recent introduction of picrotoxine, atropia with him held undisputed sway. He usually gives atropia with strychnia and morphia for the triple object of arresting the sweating, allaying cough, and stopping the reflex vomiting, and it is strange, but true, that the temperature is reduced by the combination of these remedies. He has preferred to give the atropia with regularity three times a day, because of an influence over the progress of the disease, which seems to be independent of its anhydrotic power, and which can be explained only on the supposition that it has the power to improve the nutrition of the lungs. The success of picrotoxine has been quite decided. Although possessed of properties somewhat like those of strychnia, it is by no means so powerful, and may be given by the stomach up to $\frac{1}{30}$ of a grain. Whilst atropia is given three times a day, picrotoxine may be given only at bedtime. Recognizing the influence which atropia has on the trophic system of the lungs, he has given it for years without ill and with good effects.—*Med. News and Abstract*, May, 1880.

Extirpation of the Larynx.—Dr. Lange reported to the New York Pathological Society a case of extirpation of the larynx. The cause that necessitated the operation was a tumor in the larynx of a man aged seventy-four, in whom it had caused hoarseness, dysphagia, and dyspnoea. About three months ago, Dr. Lange performed the operation, removing with the tumor the upper part of the larynx and the anterior wall of the œsophagus. Forty ligatures were required. The patient recovered. A plate of soft rubber was made to supply

the place of the parts which had been removed, restoring the anterior wall of the œsophagus. The tumor when removed was about the size of an orange. He could not say whether it was carcinomatous or not.

Dr. Lefferts remarked that he had seen the patient both before and after the operation, which was the first in America, and the nineteenth on record. There could hardly be any doubt in this case as to the indication for the operation; nor was it so difficult as might be imagined. It might be asked, why not resect the larynx to perform thyrotomy? He thought that there was too much latitude in this operation, and that some removed the larynx unnecessarily. The operation was first performed by Billroth, in 1873, who thought that it might be found useful for stenosis following syphilis, replacing the natural organ by an artificial one, but the results had disappointed this expectation. Besides Dr. Lange's, there were three successful cases: The first was that of Bertini, whose patient is still alive; the second was that of Fuller, of Glasgow; and the third that of Schone, of Freiburg. In all of these, the operation had been performed for sarcoma, and sarcoma seemed to be the only cause to justify the operation. Primary laryngeal cancer was a very rare disease; when it invaded the larynx it was generally pharyngo-laryngeal. In such cases no one would feel tempted to imitate the heroic procedure of Langenbeck, and remove all the diseased parts. In primary laryngeal cancer, laryngotomy and thyrotomy were only prophylactics. Bruus reported nineteen cases with eighteen deaths, the successful case being that of Dr. Sands. Hence we are thrown back on extirpation, and if the cases were properly selected, he had no doubt that the statistics would improve, and the operation would not be so universally condemned.—*Med. Herald*, March, 1880.

Epithelioma of the Cervix Uteri.—Dr. J. Marion Sims tells us that epithelioma of the cervix uteri never occurs under the 20th year; is rarely seen before 30; is frequently observed between 30 and 40; but is more commonly met with from 40 to 50 years of age. Its first symptom is often a discharge of blood after coitus, or after using the vaginal syringe. Again, menstruation may become profuse, and again, a serous leucorrhœa may be the first symptom. The disease may advance to a serious state, while the general health remains good. And as it is not at first attended with pain, the patient may think that the irregular or profuse menstruation and the serous discharge are only the symptoms of change

of life. Twenty years ago his success with the *ècraseur*, electro-cautery, etc., was so poor that he abandoned the operation. His plan of operating is not to amputate, but to exsect the whole of the diseased tissue, following it up into the body of the uterus if necessary; and when all is done that can be done by knife and scissors, then caustic, strong enough to produce a slough, is to be applied to the part from which the cancerous tissue has been exsected, and allowed to remain there till the slough is ready to come away. The success of all operations for cancer, whether of the cervix uteri, of the mamma, or elsewhere, depends upon the thoroughness with which the operation is executed. Many operations fail because the diseased structure is not wholly removed. By the *ècraseur* or the electro-cautery, extirpation is almost impossible. Eighteen months is about the ordinary duration of the disease. Prof. Fordyce Barker has seen one case that lasted for twelve years; one of ten years' duration, and another of six. When he is perfectly satisfied that all diseased tissue is removed (shown by the touch), he then, with scissors or knife, trims the edges of the cavernous opening, made by the operation, all around, whereby the vagina becomes continuous with what remains of the supra-vaginal cervix uteri. But the cervix, (properly speaking, infra-vaginal portion) will be found to have been wholly removed with the diseased mass. The parts are to be sponged as dry as possible, and quickly filled with cotton rendered styptic by a solution of persulphate of iron (one part of iron to two parts of water), or by a saturated solution of alum. Mix and saturate the cotton wool, and squeeze it almost dry, and then fill the conical cavity made in the uterus by the operation. This is to be held *in situ* by plain cotton wool wet in carbolized water, packed in till the whole vagina is tightly tamponed. It is almost always necessary to give morphine after the operation. In a few hours, it is generally necessary to remove a few pieces of the cotton wool from the lower part of the vagina to take the pressure from the neck of the bladder. More of the tampon may be removed the next day; but that portion that fills the upper part of the vagina, and especially that in the neck of the uterus, is not to be disturbed till the fourth or fifth day. When this is wholly removed, then the conical excavation, the real seat of the epitheliomatous growth is to be filled with cotton wool wet in a solution of chloride of zinc. His formula is:

R \bar{y} . Zinci chloridi.....5v.
Aq. distillat.....5j.

M. Fit. Solut. Sig.: Saturate the cotton wool in this solution, then squeeze it dry, and it is ready for use. Bits of cotton wool thus prepared with ehloride of zine, the size of an almond, are to be packed into the eervix until it is filled up to the level of the vagina. If the zine cotton wool is too wet, the fluid runs down on the vagina and inflames it. The cotton wool that retains the ehloride *in situ* may be removed in part the next day, and wholly in a day or two more. But the zine wool in the cervix is not to be interfered with till the fourth or fifth day after the operation. On examining the parts, if the cotton is the least adherent, it is better to let it alone for another day, or when it can be easily removed and without danger of hæmorrhage. The eup-shaped slough may come away in one piece, or it may break down. It leaves a cavity filled with healthy looking granulations, which, under the daily use of carbolized warm vaginal injections, heal up in ten or fifteen days. Whatever caustic is selected, whether bromine ehloride of zine, sulphate of zine, or what else, we should always preeede its use by operative measures to remove wholly all diseased structure, as far as possible, with knife, scissors or curette. We must get down to seemingly healthy structure before we apply the caustic.—*Gaillard's Med. Jour.*, June, 1880.

Typhoid Fever.—After balanceing the evidenee *pro* and *con*, Dr. Cayley, Leeturer on Medicine in the Middlesex Hospital School, deeides that in all probability typhoid fever never arises *de novo* from deeomposing sewage, and that whenever it spreads from the sick to those previously healthy, it is by a process of indirect infection. Several outbreaks have been recorded where diseased meat was the exciting cause. In one ease in Zürich, in 1839, no less than five hundred and thirteen persons sat down to a cold collation of veal and ham. It was notieed at the time that neither were perfectly good, but still they were eatable. Of these, no less than four hundred and twenty-one—more than four-fifths of the whole—were attacked with typhoid fever. In 1878, at Klotzu, near Zürich, another festival was held, where the chief staple of food was veal. This was so bad that much of it was given away to those who could not afford to pay for it. Consequently, some six hundred persons partook of this veal, and of these, two hundred and ninety were attaeked. Here the meat was not only putrid, but, in the opinion of Prof. Huguenin, it also contained specific typhoid poison. The period of incubation, he thinks, is much shorter than is generally supposed. At a school in Clapham, in 1869, a drain was

choked up, and in four days after exposure to the emanations, twenty out of twenty-four boys at the school had the fever, and two died comatose in twenty-four hours. As to the amount of dilution which typhoid fever poison may undergo without its poisoning power being destroyed, he recalls the recent epidemic of typhoid at Catersham and Redhill, a few miles south of London. One workman was affected with "ambulant typhoid" while working at a new adit. Here the examination showed, in all probability, only some splashing of typhoid stools mixed with a very large body of water—a proportion of most extreme minuteness—and yet the water so contaminated gave typhoid fever to three hundred and five persons. (London Letter in *Amer. Practitioner*, May, 1880.

Malarial Puerperal Fever.—A paper upon malarial puerperal fever, read by Dr. Fordyce Barker before the New York County Medical Society, has given rise to a great deal of interest and a good deal of discussion on this subject. This title he said had not as yet been adopted by the scientific world, but he thought it almost impossible for those who were largely engaged in obstetrical practice to get along without resorting to some such term. He has been studying this subject for several years, and he felt sure it was one of serious import. An occurrence of chills, high temperature, rapid pulse, and great depression of the vital forces in a puerperal patient must arouse the anxiety of the medical attendant. Especially if these symptoms, real or simulated, are accompanied by phlegmasiæ of the pelvic organs, or are followed by mania or other serious phenomena, it becomes a matter of vital importance to decide whether the attack is due to septicæmia or to the telluric and miasmatic influence of malaria. He had notes of seventeen cases of this disease occurring in his practice in New York—only three of which, however, occurred in his own practice; the other fourteen were met with in consultation. As to the time of infection, he concluded it could occur at any period following parturition, until all the physiological changes resulting from it had ceased. The earliest case he has seen began twenty-four hours after parturition. The case in which it was longest in making its appearance was delayed until the twenty-first day. The most prominent symptoms are chills, followed by a higher temperature than is usually met with in other puerperal diseases so soon after the onset. After such an explosion, there occurs a remarkable remission on the following day, and the physician is very apt to imagine that the trouble is over, and the treatment he adopted has been successful.

This delusion is removed on the second or third day by a renewal of the attack with equal or greater severity. Dr. Barker thinks in the greater number of cases the patients begin to suffer from general malaise three or four days before the violent attack, and in these cases the attack is less severe than when it suddenly bursts out. In some cases it was liable to be mistaken at first for ordinary puerperal fever, or for phlebitis. Four out of seventeen of the cases suffered with delirium simulating malarial delirium or mania. In one case which he saw in consultation he found the patient in almost a comatose condition, and at first thought she was suffering from uræmia. In spite of the doubts of the attending physician, the patient was given one drachm of Santos' solution of quinine. This was repeated every three hours, so that in twenty-four hours she received eighty grains of quinine. The next day she was perfectly rational and her convalescence was rapid. It was noticed in this case and in others that there was a remarkable immunity from cinchonism. One fatal case out of the seventeen occurred. In a number of instances, Warburg's tincture was found more efficient than quinine in half ounce doses every four hours.

In the discussion which followed the reading of Dr. B's paper, Dr. Hall, in whose practice the fatal case occurred, was struck with the remarkable toleration of quinine. In the height of the fever she frequently took one hundred and fifty grains in twenty-four hours. He also spoke of the good effect of nitrite of amyl during the prostration which accompanied the chill. He could not say that it cut short the length of the chill; but it certainly seemed to strengthen the patient to endure the high fever that followed.

Dr. Hanks, the attending physician in one of the cases with Dr. Barker, remarked that in his patient there was more loss of blood when the child was born and when the placenta was delivered than he cared to see; he is now convinced that it was even then suffering from malarial poisoning. On the sixteenth day after confinement, she was seized with a profuse flooding, and it required the most active efforts to save her life.

Dr. S. S. Jones said that it had fallen to his lot to meet with a great deal of malarial trouble in puerperal women. He thought Dr. Barker's paper well timed. He is convinced that septicæmia is liable to supervene upon malarial puerperal fever, and it is in these cases that the good effects of quinine are not so palpable. As his practice lay principally in a malarial district, he always gives quinine on the second

day after confinement, because he has become to regard malarial complication the rule and not the exception. If he found that the malarial manifestations remained after a trial of quinine, it was his practice to cleanse the uterus thoroughly with a solution of carbolic acid. His experience has been strongly confirmatory of the conclusions arrived at in the London Obstetrical Society last year, namely, that a high temperature remaining for any length of time during the puerperal state is very apt to result in septicæmia from the decomposition of blood in the cavity of the uterus occasioned by that high temperature.—*Boston Med. and Surg. Jour.*, March, 1880.

Book Notices, &c.

Advantages and Accidents of Artificial Anæsthesia. By LAWRENCE TURNBULL, M. D., PH. G., Aural Surgeon to Jefferson Medical College Hospital, etc. Second Edition, Revised and Enlarged. With 27 Illustrations. Philadelphia: Lindsay & Blakiston. 1879. 12mo. Pp. 322. (For sale by Messrs. West, Johnston & Co., Richmond.)

This is a "manual of anæsthetic agents and their employment in the treatment of disease." It is a book of great practical interest to every practitioner of surgery and medicine. Not only does it describe the chemical compositions of the various substances now used as anæsthetics in surgery, and the mode in which they should be administered, their effects and the treatment of their excessive effects when used as anæsthetics, but many valuable formulæ and therapeutic suggestions are given—not surgical in their nature—as to each of the several agents named.

In regard to the anæsthetic uses of chloroform and ether, and the question of relative mortality from the two agents, we find nothing to change our convictions as expressed in the notice of the first edition. Ethyl-bromide, which has lately been attracting attention, is highly lauded for minor operations. But, then, this chapter was written before the recent deaths occurred under its administration. In regard to the anæsthetic virtue ascribed to oxygen, we apprehend that the non-observation of this effect by others who have used it more frequently and equally as decidedly for other purposes makes the explanation of the supposed anæsthetic effect of inhalation of oxygen, given by Dr. A. A. Smith, very prob-

able, namely, that the frequent and deep respirations, in the experiments conducted in this city, some years ago, themselves caused the partial anæsthesia witnessed in the several cases.

This effort of Dr. Turnbull to lead practitioners to pay more attention to the proper selection, administration and observation of effects of anæsthetic administrations is most commendable. Too often, the anæsthetic is committed to inexperienced hands, and many sad results are undoubtedly due to this cause.

We are sorry to see this neatly issued book marred by a few typographical blunders; one of them states that Dr. J. A. Larrabee is of St. Louis, Ky., instead of Louisville.

Skin Diseases: A Manual for Students and Practitioners. By MALCOLM MORRIS, Joint Lecturer on Dermatology at St. Mary's Hospital Medical School, and formerly Clinical Assistant, Hospital for Diseases of the Skin, Stamford street, Blackfriars. With Illustrations. Philadelphia: Henry C. Lea, 1880. 12mo. Pp. 320. (For sale by Messrs. West, Johnston & Co., Richmond.)

This is a really useful book. The descriptions are simple enough for the student and concise enough for the general practitioner. One of its special excellences consists in its tables of differential diagnoses, to be found in most of the chapters. This "Manual," of course, lays no claim to be an exhaustive work; nor does it pretend to present to the reader so much that is new as that which is practical—the result of attentive reading, careful study and close observation—especially in regard to diagnosis. The table of contents is remarkably full, and the index seems to be altogether sufficient.

Clinical Lectures on the Diseases of Women. By J. MATTHEWS DUNCAN, M. D., LL. D., F. R. S. E., etc. Philadelphia: Henry C. Lea, 1880. Cloth. 8vo. Pp. 175. (For sale by Messrs. West, Johnston & Co., Richmond.)

This volume of most excellent practical lectures, delivered at St. Bartholomew's Hospital, have appeared in successive numbers of the London *Medical Examiner* and the *Medical Times and Gazette* respectively. It is taken up mostly with such cases as occur in every day practice; but some rather odd cases are described—such, for instance, as a case of "missed abortion," which means simply that the fœtus has been dead and become mummified for some weeks or months past, and is then discharged *en masse*. The lecture on "spas-

modic dysmenorrhœa"—generally termed "obstructive" or "mechanical dysmenorrhœa"—is the most practical one on this subject we have ever read. Perhaps we might complain that the author is too conservative as to surgical operations, for we find them too rarely considered or recommended when considering cases that surgery alone can relieve, according to the advances of the day. Even in regard to Battey's operation, he does not commit himself to its approval in proper cases, although the world of gynæcologists no longer condemns it. The special attractive feature of the book is the graphic description of signs and symptoms, and the exact and accurate diagnoses made.

Students' Guide to Diseases of the Eye. By EDWARD NETTLESHIP, F. R. C. S., Ophthalmic Surgeon to St. Thomas' Hospital. With 89 Illustrations. Philadelphia: Henry C. Lea. 1880. Cloth. 12mo. Pp. 369. (For sale by Messrs. West, Johnston & Co., Richmond.)

While this book makes no attempt to supplant the more exhaustive treatises on the eye, still we may say for it that it has gleaned from all of them and from current ophthalmological literature a great many practical suggestions and facts not contained in any of them; and these facts or suggestions have been concisely and yet plainly stated. The first three chapters are taken up with the means of diagnosis; the succeeding seventeen chapters describe the various diseases and injuries of the eyes; chapter XXI briefly describes the various major eye operations; the rest of the book considers "diseases of the eye in relation to general diseases." A number of valuable formulæ are appended. To all, is added a most useful index. The book is literally what its title claims for it: a most excellent "*students' guide*," which makes it a volume of great service to the *general practitioner*.

Elementary Text-Book on Botany. Translated from the German of DR. K. PRAUTL, Professor of Botany in the Royal Academy of Forestry, Aschaffenburg, Bavaria. Revised by S. H. Vines, M. D.; D. Sc., F. L. S., Fellow and Lecturer of Christ's College, Cambridge. With 275 Illustrations. Philadelphia: 1880. 8vo. Pp. 322. (For sale by Messrs. West, Johnston & Co., Richmond.)

Prior to the Confederate war, in this country, it was rare to find a physician of any renown who was not more or less of a botanist, and very properly so too. Now-a-days, this branch of the natural sciences has become almost ignored by the medical student, and its study has become committed al-

most entirely to horticulturists, a few pharmacists, young ladies, and those who simply wish to teach botany. This should not be the case, since the selection of plants and the crude vegetable remedies require professional skill. As it is, horticulturists, florists, etc., are devoting themselves mostly to such plants and flowers as are principally ornamental, leaving a large class of medicinal herbs and plants to run to waste in our fields and forests which should be cultivated. Botanical physicians and druggists are needed. Certainly, sufficient elementary botanical information should be possessed by them to recognize medical plants and to distinguish one genus and class from another. The book before us is an excellent one for the purpose. It claims to be an accurate translation of Prof. Sachs' *Lehrbuch*, and the arrangement and descriptions are excellent. The classification, we notice, varies somewhat from that adopted in this country by Prof. Gray, Dr. Rothrock, and others. A copious Index aids very materially for purposes of ready reference.

Potts' Disease: Its Pathology and Mechanical Treatment, with Remarks on Rotary Lateral Curvature. By NEWTON M. SHAFFER, M. D., Surgeon in Charge New York Orthopædic Dispensary; Orthopædic Surgeon to St. Luke's Hospital, etc. New York: G. P. Putnam's Sons. 1879. 12mo. Pp. 82. Cloth. Price, \$1. (For sale by Messrs. West, Johnston & Co., Richmond.)

"New treatments" for Potts' disease seem interminable— notwithstanding that practically introduced to the profession by Dr. L. A. Sayre a few years ago seems to be altogether satisfactory because of its extreme simplicity, and its effectiveness in the hands of those who use it according to his instructions. Dr. Shaffer's treatment is a sort of "go-between" Sayre's jacket and Taylor's brace. In the case of disease of the lumbar vertebræ, for instance, place the patient on two tables, with the diseased vertebræ between the two; then separate the tables, so as to leave the parts freely accessible. One assistant extends the body from the axillæ; another pulls on the thighs. While the patient is thus extended, fit uprights to the line of the transverse processes. Then canton flannel pads are sewed on, at the same time pass a piece of canton flannel or merino gauze around the body near the projection. The plaster bandages and everything being in readiness, the apparatus is laid on the back accurately—traction being steadily maintained by the assistants; thoracic and pelvic straps are then fastened, and the "plaster zone" is then snugly applied. Several other items of detail encum-

ber this plan of treatment, and "many advantages" are claimed for it, which, after having had considerable experience with Dr. Sayre's treatment, we are unable to appreciate, as compared with the latter plan. There may be rare cases in which Dr. Shaffer's plan of treatment may be required; but since we first saw Dr. Sayre apply his plaster-jacket several years ago in his office, we have not yet come across a case that required any modification of his *plan* of treatment, which is undoubtedly more simple than any which is effective that we have seen tried.

But the practical importance of the subject in some odd cases, and the good results claimed by Dr. Shaffer in cases where Sayre's jacket did not seem to accomplish all the good that was expected, makes it necessary that practitioners should acquaint themselves with all useful plans of treatment. We therefore recommend to physicians a study of Dr. Shaffer's plan. The book is finely issued by the Putnam's Sons, who always do good work in their line.

Headaches: Their Nature, Causes and Treatment. By WILLIAM HENRY DAY, M. D., Member Royal College of Physicians, London, etc. Third Edition. With Illustrations. Philadelphia: Lindsay & Blakiston. 1880. 12mo. Pp. 322. Cloth. Price, \$2. (For sale by Messrs. West, Johnston & Co., Richmond.)

The fact that a third edition of his work has been demanded within two years after the issue of the first, indicates the general favor with which it has been received. Dr. Day has carefully studied his subject from a clinical standpoint, which makes the publication thoroughly practical—both as to diagnosis and treatment; and the numerous foot-note references to authorities indicate his familiarity with the recorded experience of others. We have read the book with a sense of great personal benefit—both in leading to an understanding of the pathology of headaches and the rational use of remedies for the conditions described. Since we have no space to give a perfect idea of the contents, we must content ourselves by a simple and comprehensive statement of the scope of the book. After a general introduction, we find chapters, in the order named, on headaches due to cerebral anæmia, cerebral hyperæmia, sympathetic headache, dyspeptic or bilious headache, congestive headache, headache from plethora and increased vascular action, headache from exhaustion, or from some peculiar change in the cerebral tissue, nervous headache, nervo-hyperæmic headache, toxæmic

headache, gouty and rheumatic headache, headache from affections of the periosteum, organic headache, headache of advanced life, neuralgic headache, and last, but not least in value, headaches of childhood and early life. Over a hundred useful formulæ are appended. A good index greatly facilitates reference to subjects. Every doctor ought to read this book thoughtfully, and remember its lessons when called to attend a patient for headache.

A Text-Book of Physiology. By M. FOSTER, M. A., M. D., F. R. S., Prelector in Physiology and Fellow of Trinity College, Cambridge. From the Third and Revised English Edition. With Notes and Additions by EDWARD T. REICHERT, M. D., Demonstrator of Experimental Therapeutics, Union, Pa. With 259 Illustrations. Philadelphia: Henry C. Lea's Sons & Co. 1880. 12mo. Pp. 1,030. (For sale by Messrs. West, Johnston & Co., Richmond.)

This American edition makes the work a magnificent text book for students of physiology. The omissions of the author, in presuming too much that his readers were familiar or acquainted with the details of physiological anatomy, have been well supplied by the American editor. Brief notes on the physiological action of some of the important drugs have also been introduced by Dr. Reichert. It is the most complete *text-book* on the subject that we have seen; and as presented by the American publishers, it will soon become the popular reference book for practitioners who may be in search of physiological principles rather than a full detail of experiments and observations.

Pharmacology and Therapeutics: Or Medicine, Past and Present. By T. LAUDER BRUNTON, M. D., F. R. C. P., F. R. S., Assistant Physician and Lecturer on Materia Medica and Therapeutics, St. Bartholomew's Hospital. London: Macmillan & Co. 1880. 12mo. Pp. 212. Cloth. Price, \$1.50. (For sale by Messrs. West, Johnston & Co., Richmond.)

This book contains the Goulstonian Lectures delivered before the Royal College of Physicians in 1877. The object of the lectures was to show how the progress of therapeutics is aided by an exact knowledge of the action of drugs obtained by experiment. A short historical *resumé* of the various methods by which the study of medicine has been pursued in the past is given in order to enable the reader better to appreciate the position and mode of progress of therapeutics. The author accomplishes his object by a very interesting detail of physiological experiments with drugs—many of which were original. Many practical hints are incidentally

thrown out, and no one can read the book attentively without being benefitted. The book is finely gotten up, and the type is large and clear. But it is a great misfortune that English publishers have not yet acquired the habit of neatly trimming the pages of their publications without requiring the time and the tedium of the purchaser to cut the leaves, which always leaves rough edges, thereby marring the appearance of the book, and makes the page the more difficult to turn.

Manual of Auscultation and Percussion. By AUSTIN FLINT, M. D., Professor of the Principles and Practice of Medicine, and of Clinical Medicine in Bellevue Hospital Medical College, etc. Second Edition, Revised. Philadelphia: Henry C. Lea. 1880. 12mo. Pp. 240. (For sale by Messrs. West, Johnston & Co., Richmond.)

No authority in America is more eminent in questions relating to physical diagnosis than Prof. Flint. This *Manual*, however, is limited to the physical diagnosis of most of the diseases of the heart and lungs, and of thoracic aneurism. We notice, with regret, omission of reference to the murmurs and other signs of cardiac embolism, since Dr. M. L. James, Lecturer on Practice of Medicine in the Medical College of Virginia, than whom there are few better auscultators, has so thoroughly studied and described three cases of long standing which have come under his observation, and in which his diagnoses, made months before the death of the parties, were confirmed by autopsic examinations. (See *Trans. Med. Soc. Va.*, 1877.) Dr. J. P. Thomas, of Pembroke, Ky., has also seen a case. Other unrecognized cases have no doubt occurred. Dr. Flint possesses remarkable power in conveying by words a distinct impression of the sounds of percussion and auscultation. And as a guide-book on the subjects of which it treats, this one is preëminently the best published. Every practitioner of medicine should have it.

Student's Manual of Venereal Diseases. By F. R. STURGIS, M. D., Clinical Lecturer on Venereal Diseases in the Medical Department of University of the City of New York, etc. New York: G. P. Putnam's Sons. 1880. 12mo. Pp. 196. Cloth. Price, \$1.25. (For sale by Messrs. West, Johnston & Co., Richmond.)

This "Manual" embraces the University lectures delivered by the author at Charity Hospital, Blackwell's Island, N. Y., during the winter session of 1879-'80. It is a thoroughly

practical work, having little or nothing to do with the literature of the subject; nor does it enter into discussions over mooted points. Dr. Sturgis, in common with almost all authors of the present day, maintains that chancre and chanroid represent different diseases. And one who follows his points of diagnosis can scarcely go astray. Useful formulæ with full details of approved treatment are given in every section relating to treatment. If a second edition of the *Manual* is called for, we have only to suggest to the author to introduce a good index.

Lucie Rodey—A Novel. By HENRY GREVILLE, Author of "Dosia," and numerous other novels. Translated by MARY NEAL SHERWOOD. Philadelphia: T. B. Peterson & Bros. 12mo. Pp. 218. Paper. Price, 50 cents. (From Publishers.)

Doctors, as well as other people, may frequently read novels with benefit. The present one is intended to represent home-life as it occurs in many Paris families, where "*society life*" is demoralized to such a degree as to substitute amorousness for love. Lucie's husband is represented as becoming fascinated by the beauty of another's wife, and she, in return, yields herself to his voluptuous embraces, which finally leads to rupture of the ties between the wife and husband of each family. Proper morals are well brought out by the authoress from this unhappy story. One of the characteristics of the writings of the authoress is that she takes up subjects of current interest; and no French novelist equals her in the power of her descriptions, the interest she gives to her subjects, and the value of the morals to be deduced from her plots. It is said that she never wrote a novel that was not excellent. The publishers have issued the book in a handsome paper cover, and the typography is beautiful.

Homœopathy: What is It? By A. B. PALMER, A. M., M. D., Professor of Pathology and Practice of Medicine in the College of Medicine and Surgery in the University of Michigan, etc. Detroit: Geo. S. Davis. 1880. 8vo. Pp. 104. (From Publishers.)

The author of this book has been necessarily compelled to post himself regarding the history and doctrines of homœopathy, since the Legislature of Michigan some years ago established some chairs of homœopathy in the University of Michigan, in which Dr. Palmer was also a professor. It is needless to recount the facts connected with this imposition by the Legislature, since they are familiar to the reading

medical profession of this country. We cannot, however, pass this circumstance by without offering our congratulations to each of the *regular* faculty who have remained true to their real responsibility to the medical profession of the country, and still continue to combat the absurdities which have been attempted to be implanted by State education upon a community.

In regard to the present statement and review of the doctrines and practice of homœopathy, we wish every regular physician and all laymen in the country would carefully read and study the book. Too many of the regular profession are ignorant of the real dogmas of homœopathy, and hence make themselves ridiculous sometimes in discussing the subject. Since the publication of the admirable papers on the subject some years ago in pamphlet or journal form by Dr. John C. Peters, of New York city, we have nowhere come across so exact and concise a statement, and so thorough a review of the absurdities advocated by homœopaths. Nothing of passion or vindictive epithet enters into Dr. Palmer's book; it is simply a cool, dispassionate review, with logical deductions. In proof of the correctness of his fair representation of homœopathy, in his preface, Dr. Palmer lays down an open challenge—open to any one—to successfully controvert it. His facts or statements are mostly direct quotations from leading homœopathic authors themselves. We wish we could persuade every one to read this book. Unfortunately, as explanatory of the lack of interest felt in the subject in Virginia and North Carolina, where there are from 3,500 to 3,800 physicians and surgeons, we are not aware that there are as many as twenty active homœopaths; and this proportion holds true, in the main, for the entire South.

The Black Arts in Medicine, with an Anniversary Address.

By JOHN D. JACKSON, A. M., M. D., Member of the Kentucky State Medical Society, etc. Edited by L. S. McMURTRY, A. M., M. D. Cincinnati: Robert Clarke & Co. 1880. 12mo. Pp. 74. Cloth. Price, \$1. (From Publishers.)

We wish every doctor would thoughtfully read this book; for then, some, at least, would see themselves as others see them, would feel themselves self-condemned, and become so ashamed or disgusted with themselves as to remedy their ways. Although we have seen many well-written papers describing graphically the contemptible ways and means by which many practitioners—even of the regular profession—secure their practices, we have yet seen nothing that so well

brings them out as this book, which contains a supposititious letter written by "Dr. Sharpe" to "Dr. Greene;" and, in addition, an Anniversary Address delivered before the Boyle (Ky.) Medical Society in 1869. Indeed, the book ought to be in the hands of the intelligent classes of the public generally, in order that they might exercise better discretion oftentimes in lending their patronage. Dr. Jackson herein, under the form of a scathing satire, denounces the disreputable arts and devices resorted to by the unscrupulous with the purpose of securing patronage.

Pathogenetic Outlines of Homœopathic Drugs. By Dr. MED. CARL HEINIGKE, of Leipsig. Translated from the German by EMIL TIETZE, M. D., of Philadelphia. Boericke & Tafel, New York and Philadelphia. 1880. Svo. Pp. 577. (From Publishers.)

This handsomely issued book is defectively translated into English. Dr. Heinigke is an eminent authority in the homœopathic school. But it does seem strange that a man of intelligence, who has any knowledge of the physiological effects of remedies, and whose clinical observations are, no doubt, numerous, should lend his influence to the perpetuation of such therapeutic dogmas as are advanced in this book. He claims that it is erroneous "to judge the peculiarity of the effects of potentized remedies by the *quantitative* proportion in which the medicinal substance stands to the sugar of milk or alcohol used in their preparation"—thus conceding in his introductory, from his own observation, the broad principle which all scientific students of medicine claim as true, that there is a *vis medicatrix nature*. The fallacies of homœopathy, as a special school of practice, have so often been shown up, and indeed, so recently by Prof. Palmer, of Ann Arbor, Mich., that there is no occasion just now to attempt a discussion of any of the peculiar statements made in the book before us.

Pocket Therapeutics and Dose-Book. By MORSE STEWART, Jr., B. A., M. D. Second Edition. Revised and Enlarged. Detroit, Mich.: George D. Stewart. 1878. 32mo. Pp. 263. (From Author.)

This is a very useful little *pocket* book for every practitioner to carry about with him. It contains, in brief, a classification and explanation of the actions of medicines, the minimum and maximum doses in Troy weights with their equivalents in the metric weights, an index and definition of diseases, with appropriate remedies, genitive endings of all

medicines and preparations, given in italics, index of common and pharmaceutical names, classification of symptoms, poisons and their antidotes, and some useful hints to the prescriber. There are few, if any, practitioners who have not wished to have just such a book while on his way to, or even at, the bedside of a patient, in order to refresh his memory.

Aids to Physiology. By B. THOMPSON LOWNE, F. R. C. S., England. New York: G. P. Putnam's Sons. 1880. Pamphlet. 16mo. Pp. 104.

Aids to Chemistry. Three pamphlets. 16mo. Pamphlet. Total pages, 246. By C. E. ARMAND SEMPLE, B. A., M. B., Cantab.; M. R. C. P., London. Same Publishers. 1880.

Aids to Materia Medica and Therapeutics. Part II (Double Part.) **Vegetable and Animal Substances.** By C. E. ARMAND SEMPLE, B. A., etc. 16mo. Pamphlet. Pp. 152.

The above five titled pamphlets form a part of the "Students' Aid Series," which, written by English authors, is neatly published in pamphlet form in this country by the Putnam's Sons. While we find nothing in these little volumes to which to call special attention, as being either new or non-useful, we cannot feel that there is a demand for them. In view of the numerous better students' text-books on these subjects, issued and being almost monthly published, these books are neither needed nor desired by them; while the practitioner would much prefer a more comprehensive epitome of the subjects treated of. In short, this "Student's Aid Series" is of that class of publications that we have nothing further to say, for or against.

Hygiene and Education of Infants, or How to Take Care of Babies. Translated from the French by GEORGE E. WALTERS, M. D., Professor of the Principles and Practice of Medicine in the Cincinnati College of Medicine and Surgery, etc. Cincinnati: Robert Clarke & Co. 1880. Paper. 18mo. Pp. 72. Price, 25 cents. (From Publishers.)

This is a translation of the recent work edited and published by the Société Française D'Hygiène, of Paris, bearing the seal of its authority—the committee making the report being composed of MM. R. Blache, Ladret de Lacharière and Menier (d'Angers). It tells the young mother, in a pleasing and accurate way, what she should know concerning the details of the baby's life; how to clothe it, how to feed it, how to wean it, etc. Its lucid explanations will relieve her of many anxieties which, to the inexperienced, wait on every moment of the baby's young life. It states nothing

that is superfluous. Practitioners should read it and recommend it to those in family charge of infants.

Memoranda on Poisons. By THOMAS HAWKES TANNER, M. D., F. L. S. Fourth American, from the Last London Enlarged and Revised Edition. Philadelphia: Lindsay & Blakiston. 1879. 16mo. Pp. 201. (From Publishers.)

This is a very useful book to every doctor—containing a list of the more common poisons, symptoms produced by them, plans of treatment, etc. A prominent object of the author in preparing the volume was to point out the agents which produce slow poisoning, how to detect their use, and how to combat their effects. As a *guide-book* for the medical jurist, it is especially useful. The popularity and authority of the work are shown by the number of editions through which it has passed.

PAMPHLETS, REPRINTS, ETC., RECEIVED, for which we have no room for further notice, but most of which can be obtained by enclosing a letter stamp for each pamphlet to the respective authors named.

Lectures on Cataract, with a Tabulated Report of One Hundred Recent Cases. By G. E. FROTHINGHAM, M. D., Professor of Ophthalmology in the University of Michigan, Ann Arbor. (Reprint from *Physician and Surgeon*.) 8vo. Pp. 47.

Electricity in Medicine and Surgery, with Cases to Illustrate. By JOHN J. CALDWELL, M. D., Baltimore, Md. (Reprint from *Gaillard's Medical Journal*.) Illustrated by woodcuts. 8vo. Pp. 42. Price, 25 cents.

Relative Frequency of Color-Blindness in Males and Females. By B. JOY JEFFRIES, A. M., M. D., (Reprint from *Boston Medical and Surgical Journal*, July 25, 1878.) Pp. 7.

New Modification of the Anterior Splint. By ROSWELL PARK, A. M., M. D. (Reprint from *Transactions of Illinois State Medical Society*, 1878.) Pp. 4.

A Rotating Urethrotome. By JOHN A. PRITCHETT, M. D., Haynesville, Ala. (Reprint from *New York Medical Journal*, July, 1878.) Pp. 6.

Skepticism Prevalent Regarding the Efficacy of Aural Therapeutics. To what Extent is it Justifiable? By SAMUEL THEOBALD, M. D., Baltimore, Md. (Reprint from *Maryland Medical Journal*, January, 1879.) Pp. 10.

Objections to the Use of Carbolic Acid in the Treatment of Piles. By J. M. MATHEWS, M. D., Louisville, Ky. (Reprint from *American Medical Bi-Weekly*, April 27, 1878.) Pp. 8.

- Bulletin of the Medico-Legal Society of New York.* November, 1878. Edited by GEORGE W. WELLS, M. D. Pp. 16.
- Report on Plans for Securing Complete and Authentic Records of Deaths, and the Causes of Death in the United States.* By ELISHA HARRIS, M. D., New York. (Reprint from *American Public Health Transactions*, 1877.) Pp. 16.
- New Treatment for Chorea.* By JOHN VAN BIBBER, M. D., Baltimore, Md. (Reprint from *Transactions Med. and Chirurg. Faculty of Maryland*, 1878.) Pp. 8.
- Involuntary Action of the Nervous System.* Read before American Dental Association, at Oakland, Md., August 17, 1877. By JOHN J. CALDWELL, M. D., Baltimore, Md. Pp. 19.
- History of the Diagnosis, Pathology and Treatment of Yellow Fever.* By J. B. MARVIN, M. D., Late Resident Physician to the Yellow Fever Hospital, etc., Louisville, Ky., etc. (From *American Practitioner*, November, 1878.) Pp. 15.
- Case of Sarcoma of the Kidney in a Negro Child.* By W. H. GEDDINGS, M. D., Aiken, S. C. (From Vol. II *Gynecological Transactions*, 1878.) Pp. 3.
- Report on Laws, Provisions and Methods for Securing General Vaccination throughout the Country.* By ELISHA HARRIS, M. D., [Ex-] President American Public Health Association, etc., New York. (From Vol. III *Transactions American Public Health Association*.) Pp. 16.
- Treatment of Yellow Fever.* (Notes taken from a Lecture by Dr. MANUEL DAGNINO, at the Medical University of Caracas, Capital of Veneuzuela. Translated into English by Dr. Antonio de Tejada, of New York, N. Y. Price, 25 cents. Copyright. Pp. 17.
- Eradication of Syphilis and Crime by the Extirpation, in that Class, of the Procreative Power.* By GEORGE F. FRENCH, M. D., Portland, Me. Pp. 8.
- Causation of Typhoid Fever.* Fiske Fund Prize Essay. By GEORGE E. WARING, M. D., Newport, R. I. (From *Boston Medical and Surgical Journal*, July 18 and 25, 1878.) Pp. 16.
- Urethral Stricture.* By THOMAS R. BROWN, M. D. (deceased), Baltimore, Md. (From *Transactions Med. and Chirurg. Faculty of Maryland*, 1878.) Pp. 16.
- Case of Compound Dislocation of the Wrist.* By the same Author. 8vo. Pp. 5. (From *Transactions St. Louis Medical Society*.)
- Suggestions in the Treatment of Spinal Diseases and Curvature.* By E. H. COOVER, M. D., Harrisburg, Pa. (From *Medical and Surgical Reporter*, April 13, 1878.) Pp. 4.

Ovarian Tumors. At what Stage of the Disease is the Proper Time to Operate? By EDWARD BORCK, M. D., St. Louis, Mo. 8vo. Pp. 7. (From *Cincinnati Obstetric Gazette*, March, 1880.)

Lister's Antiseptic Method of Treating Surgical Injuries. By JAMES L. LITTLE, M. D., Professor of Surgery, Medical Department University of Vermont, etc., New York, N. Y. (From *American Clinical Lectures*, Vol. III, No. XI.) Pp. 32.

History of the Origin and Growth of the Jefferson Quig Association, together with a Condensed Account of Six Years' Experience in Medical Teaching. Valedictory Address, March, 19, 1880. By JOHN V. SHOEMAKER, A. M., M. D., Philadelphia, Pa. Published by the Society. 8vo. Pp. 27.

Spirometric Measurement of the Lungs. By ALEXANDER RATTRAY, M. D. Pp. 8. (From *Pacific Medical and Surgical Journal*.)

Spirometer in Diagnosis. By same Author. Pp. 7.

Editorial.

Medical College of Virginia.—The friends of medical education in Virginia, and the profession everywhere, must unite with us in giving a hearty support to the new departure about to be initiated by the Faculties of our State Institutions. By reference to the advertising page on our cover, it will be seen that the next session of the Medical College of Virginia will be extended to *nine months*; the number of lectures each day will be greatly reduced, and each professor will conduct a daily system of examinations in connection with his lectures.

The course of instruction will be divided into an elementary and a clinical class. Students entering upon their first course will be examined on anatomy, physiology and chemistry at its termination, and thus be ready to go into their second course of practical study at the bedside. The second year of study will be then occupied entirely with the practical branches. The Chair of Practice will be supplemented by special courses of auscultation and percussion by experienced lecturers; the Surgical Chair by courses of lectures in minor surgery and bandaging. Practical chemistry and microscopy will be a leading feature; and a *post-mortem*

clinic will give the graduating class ample opportunities for witnessing and studying pathological anatomy on the cadaver.

Now, if ever, is the time when the Virginia profession should put its mark upon the schools which continue to keep down the standard, and in every way retard the advancement of medicine. Let every physician in the State, and in West Virginia and North Carolina, to whom the Medical College of Virginia has a right to appeal for co-operation and support, now come forward and send their students to take advantage of what we do not hesitate to say is the most complete system of instruction offered in this country. It is both continuous and progressive, keeping the student steadily at work from the rudiments of medicine to its final triumph at the bedside.

We are glad to say also, in this connection, that a similar course will be inaugurated at the University of Virginia, thus putting both of our schools on the same high platform of excellence.

De Lessep's Inter-Oceanic Canal is the title of an instructive article in the *Independent Practitioner* for July, 1880, by Dr. George Halsted Boyland. This canal, it is proposed, will unite the waters of the Atlantic and Pacific Oceans, through the Isthmus of Darien, and form a channel for commercial vessels of the largest size. Besides the arguments of speedy communications, etc., Dr. Boyland presents the claims of this measure especially on hygienic grounds, and shows that the canal would reclaim a section now in waste and infected by miasma of every form. The country would become inhabitable by civilized man, and would furnish a fertile soil for productions that add to the comfort of man. Such subjects should receive more of medical attention from the profession than they do. If the views of Dr. Boyland are sustained by the opinions of the profession, after a study of the subject, then much politico-economic good may be accomplished.

The Seven Springs Iron and Alum Mass is a useful saline product obtained by the evaporation of the waters taken from the celebrated Seven Springs, near Abingdon, Va. Not only theoretical considerations suggest its use as an alterative tonic, but long and large experience in the hands of many of the most able practitioners confirms the fact that none of the natural waters of the country are more serviceable in the treatment of such conditions as anæmia, menor-

rhagia, many of the forms of dyspepsia, etc. For some of the many affections in which it has proved pre eminently serviceable, our want of space compels us to refer the reader to the advertisement in this number, after the reading matter.

Correction.—**Dr. B. Joy Jeffries' Remarks on Color-Blindness**, as reported on page 328 of our July number, and pretty much copied by us from the *Medical Record*, we are informed by Dr. Jeffries, have been incorrectly stated. He has tested 17,327 males, finding fully four per cent. color-blind. He has found but ten color-blind females of 13,713 tested. Amongst the various methods of testing for color-blindness which he described was Holingreen's, with worsteds. Donder's *quantitative* test, as also Holingreen's, were explained. Color-blind examinations are now required in the United States Army, Navy and for pilots of Marine Hospital Service. Connecticut has a good law—such as he proposed for Massachusetts—based on the laws and regulations as approved by the International Medical Association at Amsterdam in September, 1879, at Prof. Donder's suggestion. Ten ophthalmic surgeons have been appointed in Connecticut, and they are to test all railroad employees for visual power and also color blindness before October 1st, 1880. Dr. Jeffries' manual—*Color-Blindness—Its Dangers and its Detection*—has been adopted by the United States Government as the standard for medical officers of the Army, Navy and Marine Hospital Service.

Medical Graduates of University of Virginia.—The following is a list of the graduates, with the title of Doctor of Medicine, on July 1st, 1880, at the University of Virginia: E. C. Carter, University of Virginia; J. D. Emmet, New York, N. Y.; B. W. Goldsborough, Baltimore, Md.; O. G. B. McMullan, Hartford, N. C.; C. E. Meriwether, Clarksville, Tenn.; C. O. Miller, New Market, Va.; A. Nolte, Seguin, Texas; P. S. Roy, Fredericksburg, Va.; J. S. St. Clair, Bonsacks, Va., and N. H. Street, Newberne, N. C.

We learn that some changes in the medical course of instruction at this renowned institution are in contemplation which will greatly advance the interests of medical students, and which will make the medical diploma of the University of Virginia even more to be prized in the future than in the past. The University Medical Faculty is wide awake to every move tending to advance the standard of medical education.

Quinquinia—manufactured by the reliable firm of Messrs. Chas. T. White & Co., of New York, N. Y.—has been steadily advancing in professional esteem ever since its introduction. A number of the leading practitioners in the malarial districts of the South have adopted its use, and find that it is nearly the equal of quinia in the certainty of curative effects, and that it is much cheaper pecuniarily. In the position of Acting Assistant Surgeon of the United States Marine Hospital Service for the port of Richmond, the editor has time and again prescribed quinquinia for intermittent malarial trouble, and thus far with invariable success. Wherever malarial troubles are prevalent, it is a matter of great importance to have an efficient and cheap substitute for quinia.

Biographical Sketches of Old Medical Authors.—Dr. George J. Fisher, of Sing Sing, N. Y., is contributing to the *Annals of the Anatomical and Surgical Society* a most interesting series of sketches of the lives, times and works of the old masters of anatomy and surgery. To those fond of the history of the profession these papers are invaluable, as they are carefully compiled and elegantly written.

Drs. Hunter McGuire and George Ross, of Richmond, Va., sailed on Wednesday, July 28th, for Europe. They expect to be absent some six or seven weeks.

Prof. J. H. Pooley has resigned the Chair of Surgery in Starling Medical College, Ohio. That institution has by this lost her most efficient teacher, and one whose place cannot be filled.—*Lancet and Clinic*.

Queries and Answers.

Hydrate of Chloral.—Dr. H. H. Kane, of New York city, specially requests members of the profession, with any experience whatever in the use of hydrate of chloral, to answer the following questions, and give any information they may possess with reference to the literature of the subject:

1. What is your usual commencing dose?
2. What is the largest amount you have administered at one dose, and the largest amount in twenty-four hours?

3. In what diseases have you used it (by the mouth, rectum or hypodermically), and with what results?

4. Have you known it to affect the sight.

5. Have you ever seen cutaneous eruptions produced by it?

6. Have you known it to affect the sexual organs? If so, how?

7. Do you know of any instances where death resulted from or was attributed to its use? If so, please give full particulars as to disease for which given; condition of pulse, pupils, respiration and *temperature*; manner of death; condition of heart, lungs and kidneys; general condition, age, temperament, employment, etc., etc., etc. If an autopsy was held, please state the condition there found?

8. Have you seen any peculiar manifestations from chloral—as tetanus, convulsions or delirium?

9. Do you know of any cases of the chloral habit? If so, please state the amount used, the disease for which the drug was originally administered, the person's temperament, and the present condition of the patient, with reference to the state of body and mind in general, and of the various organs and systems in particular.

Physicians are earnestly requested to answer the above questions fully, especially 7 and 9, in order that the resulting statistics may be as valuable as possible.

All communications will be considered strictly confidential, the writer's name not being used when a request to that effect is made. Address all letters to Dr. H. H. Kane, 191 west Tenth street, New York city.

Obituary Record.

Alfred Swayne Taylor, M. D., F. R. S., the world-famed toxicologist, and author of several text-books relating to medico-legal jurisprudence, died at his home in London, England, May 27th, 1880.

Dr. James C. Hall died at his residence in Washington, D. C., June 7, 1880, in his seventy-fifth year. He was born in Alexandria, Va. He was for some years Professor in the Columbian College, and during his long residence in Washington, he occupied many positions of professional trust.

William Sharpey, M. D., F. R. S., died at the age of 78 years, April 11, 1880. His special reputation as an anatomist is well known in every medical community.

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Original Communications.

ART. I.—**Myopia in its Various Phases.** By JULIAN J. CHISOLM, M. D., Professor of Eye and Ear Diseases in the University of Maryland, Surgeon-in-Charge of the Presbyterian Eye and Ear Charity Hospital, Baltimore, Md., etc., etc.

Near-sightedness, or, as it is more properly called, *myopia*, is well understood by those who have made the diseases of the eye a special study, but to the greater number of medical men this common disease is enveloped in a vaguely-defined and misty pathology. Most physicians are aware that in myopia there is some defect of the focusing of the eye as an optical apparatus, but why the machinery of the visual organ does not work as it ought to do is not so clearly appreciated. Some have a settled impression that the eye-ball is elongated, and hence a disturbance of those nice relations which the varied contents of the eye should have with each other. They speak of the eye as a long eye, with alteration in shape from the typical eye, which is nearly as round as a ball.

The world has assumed that in all near-sighted persons the front of the eye is more convex, and many members of the profession hold to this erroneous opinion which they had imbibed before they had entered the medical ranks, and which error has never been corrected. The

junior members who have recently pursued their medical studies in the large cities, have had better advantages for obtaining an insight into the specialties in medicine. They have been taught that in most near-sighted eyes there is an elongation in the long diameter of the eye from the pupil backwards, and not simply in the increased convexity of the cornea. There is a rare form of near-sightedness in which the elongation of the eye is due to the projection forwards of the cornea, the centre of which projects out as a cone—a disease called *conical cornea*. This pathological condition is so rare that it would not explain one case of near-sightedness out of one thousand. Where a perfect eye has become myopic, this elongation is usually found in the bulging of the back wall or sclerotic coat near the entrance of the optic nerve, and to which the most elaborated portions of the retina, with choroidal backing, is attached.

This explanation, viz.: the pushing out of the back of the eye-ball, which is applicable to so many adult near-sighted persons, does not, however, cover the entire field of myopia. Some old persons, markedly near-sighted, whose sharp vision extends to a very few inches beyond their noses, have experienced no change whatever in the length of the ocular diameter. In such myopes an explanation of the optical defect is found in the change of shape in the lens alone. Again, in a very large number of those who have restricted distant vision, especially in young persons, near-sightedness is found associated with an eye that is actually shorter in this antero-posterior diameter than a good eye should be. It is in the act of habitually straining such a flat eye to make it see sharply small, near objects, that the ciliary or accommodating muscles within the eye-ball become irritable, and finally are thrown into a spasmodic contraction, with inability to resume voluntarily a passive or relaxed state. It is this excessive muscular contraction that is continuously kept up which makes the lens too convex, puts an end to distant vision, shuts out the definition of objects across the street, and induces near-sightedness.

All of these varied conditions cause myopia. They represent functional as well as organic changes, and are

found at various stages of life. Some only show themselves in persons well advanced towards extreme old age, while others are restricted to childhood or school days. We must now add to this list of acquired near-sightedness a number of eyes, congenitally defective in shape, which, in intra-uterine development, had become longer than a typically good eye should be. Such transmitted peculiarities of an elongated eye-ball form, however, the exception in the great list of myopes, as comparatively few of the great number of near-sighted persons are as yet indebted to their parents for this peculiarity.

Near sightedness is capable of easy recognition in its various forms—sharp near sight with foggy distant vision establishing the diagnosis. The first natural division among the myopics would be into those who are born with long, misshaped eyes (congenital myopia), and those who acquire near-sightedness, whether from changes occurring in the shape of the eye or from variations in form of the crystalline lens. Some of these conditions are permanent, while others are very transient.

Observation teaches us that myopia runs in families, and that some children are near-sighted because their parents were so before them. Peculiarity of features are clearly inheritances, and a long eye is a well-defined individual peculiarity, which places itself in the hereditary list for transmission. Every child born of near-sighted parents is not of necessity near-sighted, and fortunately myopic parents are not so very numerous as to establish a heavy percentage of congenital cases. In this respect, however, nations differ. In some parts of Continental Europe, especially in the largest and oldest cities, we find a larger percentage of myopes among the adult population than we would find among the agricultural classes, and correspondingly in such cities a larger number of children who commence life with near-sighted eyes.

The defective eye-sight of the human race has been carefully investigated in most of the civilized countries, and with this well-established result, viz.: that myopia is not often met with among the peasantry of a country. It is found most

commonly in the large cities, in which is felt the necessity for more mental exertion among young persons, in preparation for securing a more comfortable living in the future. This exertion is expressed by the closer and longer-continued daily application of eye-sight in study.

The collecting of children in the public schools in all parts of the civilized world, offers great facilities for the study of eye defects, and the relative frequency of such eye diseases in the cities and in the country. From Germany, Russia, Switzerland, France, England and America we are now in possession of such accurate data; and all of these investigations, made by the scientific specialists of these respective countries, singularly confirm the above statement.

With reference to near-sightedness, a striking difference is found between the smaller children entering the schools and the graduating classes in the same schools; and a similar proportion is sustained if the same children are followed up in the successive classes from their admission to their graduation. In country schools, the number of near-sighted children in the lowest classes may not reach 2 per cent. of the pupils. As these little people came with near-sighted eyes into the school, and have not advanced beyond their alphabet in education, they clearly should be classified with cases of inherited myopia, as the offspring of myopic parents. This percentage is much increased in the infantile classes of city schools until 13 per cent. is reached in the largest and oldest cities of Germany, making this their starting point for eye defects in school life.

Every year of study adds to the percentage of myopic children. This condition of the eyes shows a steady increase in all literary institutions, growing *pari passu* with the amount of application and intellectual development of the young persons, until it attains its highest degree in applicants for collegiate honors. Some of the graduating classes in the highest schools of the Continent of Europe exhibit 70 per cent. of near-sighted students. If we take 5 per cent. as an average of city and country schools among the pupils six years of age, meaning those in the primary classes, as marking the near-sighted children by inheritance, and 50 per cent.

as the average of the graduating classes in the highest schools, we have 45 per cent. as indicating the acquired cases of near-sightedness. This number of near-sighted or weak-eyed persons is being continually added to the intellectual and learned population of the civilized globe.

From these figures it would really appear as if our higher education was ruining the eye-sight of our race. The observant citizen sees many more young persons using spectacles now than formerly, and hears constant complaints of defective eyes among his young friends, apparently out of all proportion to his former experience. That eye diseases are on the increase there can be no question, and our school system has been justly charged with the growing trouble.

The eye, like any other very delicate instrument, is capable of abuse, particularly during its growing period. Although it may attain its full size at 12 or 14 years of age, its protecting walls do not secure the full powers of resistance until the maturity of the rest of the body. Up to twenty years of age, the eye is liable to injury from over-work, and this is more especially the case between the years of 8 and 16.

In studying the anatomy and physiology of the eye, we find a ready explanation for those organic changes which are brought about in myopia. At the commencement of school life—say from 6 to 8 years—we find the eye-ball a hollow organ, filled with fluid, and very richly supplied with blood-vessels. It has already nearly attained its full growth as to size and the development of its intricate contents; but its outer sclerotic wall, which is to fix the shape of the organ, is not as dense, tough and resisting as it will be when the body attains maturity. At this stage of bodily development the lens of the child is well formed and is of so elastic a nature, from the juiciness of its fibres, that it can readily change its shape and approach the globular form when strongly acted upon by the accommodating muscle. This increased convexity prepares it for condensing light upon the retina for near and small objects.

It must be remembered that the eye is a microscope, with lens adjusted by nature to the retinal surface, the distance

from the inner face of the lens to the rod and cone layer of the retina being fixed. Any change in these relations must seriously affect the eye for near or distant vision. When the retina is removed from the fresh eye, it is recognized as the thinnest of membranes; *yet it is only the outer surface of the membrane that is called the percipient layer.* It alone can receive the image of objects looked at. Any other part of the many layers of varied structure which enter into the thickness of the retina, will not answer this purpose of vision. When a transverse section of this thin film of tissue of retina is put under the microscope, it exhibits a heterogeneous structure of seven or eight transparent layers. It is only the outer one, representing about one-fourth the thickness of the entire membrane, which is subservient to the reception of an image, viz.: the rod and cone layer. Should the lens focus on any other part of the retinal thickness, no clear sight would result, as no other part of the retina but that surface, backing upon the pigmented choroid coat, is designed for the reception of visual impressions. In a normal eye of proper dimensions, with the full powers of accommodation for distant and near objects, the relation of lens to percipient layer of the retina must not only be of a certain determined character, but must also be immovably fixed in this relation; and the outside, thick, tough, resisting, inelastic, sclerotic envelope of the eye-ball is the brace which must keep up these accurate relations by preventing the eye from changing in any wise its shape.

We have referred to the eye-ball as a hollow organ nearly an inch through its various dimensions, a shade deeper in its antero-posterior diameter than in its horizontal or vertical diameter. Its outer shell of clear cornea in front, and the opaque sclerotic coat for five-sixth of its surface, gives it shape. This is lined within by the extremely vascular and pigmented layer called the choroid, with the colored muscular septum of iris attached to its anterior border. The retina, as the especial organ for perception, lines this choroid on its inner side. These three layers of sclerotic, choroid and retina, bear the respective relation of brick wall, plaster coat and papering of an ordinary room, and in about the same relative propor-

tionate thickness. The entire cavity of the eye-ball is filled with a transparent liquid between lens and cornea, and a more consistent, clear fluid, as the vitreous mass, filling up the bulk of the cavity; with a crystalline lens of a denser, transparent substance placed directly behind the pupil and fixed in this intermediate place by the suspensory ligament. This lens is made up of hundreds of layers of elastic, transparent fibres, giving the whole mass the shape of a bi-convex lens of about $\frac{5}{8}$ of an inch focal power, which corresponds to an exceedingly strong magnifying glass. The ciliary bodies which change the shape of the lens, are well secured to the inner face of the eye-shell at the junction of the iris and the choroidal linings. Through their agency, the surfaces of the crystalline lens become more convex as nearer objects are viewed, and this physical change, which increases the strength of the lens, is recognized as the accommodation of the eye. The cornea, lens, and fluid contents of the eye, all act as condensing media, and all, therefore, possess magnifying properties. They are classified together as the dioptric media, or the light-condensing apparatus.

Although the retina or sensitive nerve layer lines the entire back chamber of the eye-ball, and covers nearly a square inch of surface, very little of it is used for our best vision. All the light which passes into the eye is condensed by the lens upon a point not larger than a small pin head, and as we face everything that we desire to see well, this small area of the retina is placed in a straight line directly behind the pupil. This little section of the retina, not more than a half line square, is worth all of the rest of the retina put together. It is the most elaborately developed part of this sensitive nerve layer, and is known as the fovea centralis or the yellow spot of Soemmering. This yellow spot in a good eye, capable of work at all distances, must be fixed at a determined distance from the back of the lens so as to catch the concentrated light. It must undergo no change of place, and hence it is supported by a very heavy backing of the thickest part of the eye-walls. The entrance of the optic nerve into the eye-ball is within two lines of the yellow spot. During the accommodation of the eye for near objects and

the changes in the shape of the lens, needful for this act, the posterior pole of the lens never moves from its fixed position, however much the curved sides of the marginal edges of the lens may vary in place.

In the working of the eye as an optical apparatus, the adjusting of the lens to focus light at varied distances is the especial action of the muscular elements of the ciliary bodies. When an eye-ball has been cut in half midway between the cornea and the optic nerve entrance, the curious collarett which is seen approaching the circular edge of the lens, is the accommodating apparatus for changing the focal power of the lens. The radiating bodies of prismatic shape, and about sixty in number, which form this deeply pigmented circular layer, are made up chiefly of blood vessels and muscular fibres hid away under and between masses of pigment cells. It is the muscular element of the ciliary bodies which, in the living eye, plays the part of the adjusting screw of the opera glass. By the varied muscular contractions of these bodies, acting upon the lens, during our waking hours, all light passing through the pupil is at once concentrated upon the yellow spot, regardless of the various distances from which the light comes, or the object upon which the normal eye may be directed.

The working of the eye is a muscular act. Muscles, when overworked, will exhibit fatigue, which is often expressed by painful sensations. They can also become irritable when over-used, and then will work irregularly, sometimes even spasmodically. Such irritable contractions may become more or less permanent, and keep the lens in an unrelaxed condition of greatest convexity.

All organs, when in use, need an over blood supply. Immediately after taking a hearty meal, the stomach requires so much blood from the rest of the body that, with many persons, a sensation of chilliness is occasioned. After much walking, our legs swell, as evidenced by our boot tops tightening around our engorged calves. After much mental work, the head feels full, and the brain, if visible, would appear reddened from an increased circulation. So is it with the eye. Eye-work is inseparably connected with the ordinary

wear and tear of the organ in use, which calls for an additional amount of the nutrient fluids of the body to repair the loss.

The intensity of eye work is measured not only by the length of time that the eye is being used, but also by the degree of contraction of the ciliary muscle; and both conditions are inseparably connected with local congestion. When the intra-ocular muscles are thrown into spasmodic action, they induce and ensure a temporary hyperæmia of the interior of the eye ball; and, necessarily, an increase in the contents of this hollow organ. Should this condition of muscular activity be frequently and for a long time kept up in an eye not yet hardened by the complete development and maturation of its protecting layers, the comparatively soft eye shell, as found in the child, shows a disposition to yield at the opening where the optic nerve fibres enter the sclerotic coat, and the foundation for a posterior staphyloma is laid. *Staphyloma* is the term given to the bulging of the walls at the back of the eye, which, by elongating the antero-posterior diameter of the eye-ball, makes the organ permanently near-sighted. When once the beautiful symmetry of the ocular walls is disturbed by this bulging, the eye never can regain its normal shape. It is ever afterwards liable to become further distorted, until it is seriously disturbed in its working capacity, and *becomes a very near-sighted eye, which is always a diseased one.*

The working of the ciliary or accommodating muscles is always associated with the action of the outside recti muscles. When the four recti muscles clasp the eye-ball, they strengthen the sides of the organ, but concentrate the strain at the weak optic nerve entrance. Unfortunately, there is no great distance between the optic nerve entrance and the yellow spot of Soemmering—that elaborated portion of the retina which is designed for all sharp vision. Very little over a line in measurement marks the distance of this all-important portion of the sensitive layer from the point where the eye is giving way. In the bulging, especially if excessive, this yellow spot must be displaced backwards.

In using a powerful microscope, a very slight motion im-

parted to the cylinder by a turn of the adjusting screw, although it causes no visible movement in the body of the instrument, materially affects the focus of the lenses, and blurs the object which before was so sharply defined. So is it with the eye. We have already said that to see distinctly, light must be sharply concentrated by the crystalline lens, on the back layer of the thin film of tissue called the retina or sensitive nerve layer of the eye. Should this accurate focusing of light fall on the middle or the inner surface of this delicate membrane, it would produce a blurring of the image, such as is seen by near-sighted persons when they look at distant objects. It does not, therefore, require much drawing back of this membrane to cause a positive impairment of vision. A fraction of a line will produce decided disturbances in the condensation of light coming from a distance, and give a very foggy horizon. Should this retinal membrane recede for the space of a line, it would make the eye so very near-sighted that one could hardly see beyond his nose.

This tendency to yielding of the human eye from study is peculiar to its growing state. When the eye is well hardened, as it is at maturity, a much greater amount of eye application can be borne continuously without fear of bulging the eye shell and injuriously changing the shape of the organ. At the age of 20, a good eye can be abused by over-work without producing myopia; while one-fourth of the same application at the age of 10, with an eye yet soft in the structure of its sustaining envelopes, would cause the eye to give way in its back wall, and bring about the disease of near-sightedness.

Myopia is most frequently an acquired condition, dependent upon the over-use of the eyes at an early age, and especially during school life. This condition, although excited immediately by the over-work of the organ, can be hastened and augmented by the physical condition of the scholar and his surroundings. Nothing is so conducive to defective health of the body, the eye included, as the crowding of many children into badly-ventilated and defectively-lighted school-rooms, in which they are made to sit day after day, and for many consecutive hours. This atmosphere is tainted with the ex-

halations from their own bodies, and in winter with the noxious gases of defective stoves. Into these school-rooms, during the many long winter months, air is admitted only through the accidental opening of a door to give entrance or exit to some of the numerous inmates. Living for so many hours a day in this impure air of the school-room, the body becomes slowly enfeebled, and the tissues lose their power of resistance. They become flabby and soft, and when pressure is made upon them from over-exertion, they give way.

In most of our public schools, there seems to be one paramount object before the minds of the teachers, and it absorbs every other consideration. The children are sent to have their brains developed, or, rather, crammed with book knowledge, much of which is worthless, and the rest of their bodies is of secondary consideration. School-books are, therefore, multiplied *ad nauseam*, and lessons lengthened without mercy, necessitating additional hours of prolonged study out of school, which can be so much more profitably spent in bodily exercise. Teachers will not be sufficiently impressed with the important fact that the eye, especially in its growing state, is capable of abuse; and that while excessive use tends to increase the fluid contents of the visual organ, it requires a matured eye-ball to resist the injurious distension to which the growing eye of a child so readily yields.

When the walls of a house bow out from the perpendicular, the strength of the structure is seriously impaired, and so is it with the human eye. As an additional weight causes the wall of the building to yield the more—even to the final destruction of the edifice—so does increased study during school life with a yielding wall of an eye cause an increase in the bulging, and a serious disturbance in the organic structure, as well as in the functions of the organ. *As no one expects the bowed wall of a house to right itself; so the bulging eye has no chance of ever shrinking back to its normal dimensions, the popular opinion to the contrary notwithstanding.* A stretched membrane, that cannot regain its normal position, becomes necessarily a weak one, and acquired near-sightedness by weakening the structural envelopes of the eye, lays the foundation for many diseases.

Nature, as a rule, makes the eye right, but over-exertion of it at too early an age brings on disease. We have already stated that the examination of the students in the public schools in country and city conclusively proves this. It has also been shown that near-sightedness is greatest among the most studious, so that the number of persons wearing glasses can be, in a measure, taken for the intellectual standard of a community. Near-sightedness may be considered one of the signs of mental culture in reference to small as well as large communities. I do not mean by this that only the weak-eyed of a town are the book-worms, for all eyes do not, fortunately, give way under abusive work.

Some of the school statistics give curious data in support of the established fact that a higher education threatens serious injury to the eye-sight of our race, both through acquired and afterwards transmitted near-sightedness. Starting with normal eyes so constantly found among all primitive people, and, to a large extent, with the properly-shaped eyes so common among the inhabitants of rural districts, who, with limited education, devote their lives to tilling the soil, we will find an increased number of misshaped eyes among the children of the inhabitants of the older cities and in special countries, as a starting point for the greatest increase in acquired near-sightedness in the public schools, Germany heading the list for its largest cities in the greatest number of myopic children. As an evidence of the transmitting of these defects to offspring, we can readily trace in our largest American cosmopolitan cities the influences of a foreign population in disseminating these eye defects. The largest number of near-sighted children in the primary classes of our public schools are of German parentage.

Dr. Macnamara's experience in India as regards the absence of myopia among the uneducated classes of that country, I can fully endorse, in reference to the negro race, as forming the uneducated and laboring class of the Southern States. I cannot recall a single instance in which I have detected myopia in a full-blooded negro. With nearly the total ab-

sence of intellectual culture 10 years ago among the 3,000,000 of negro population of the Southern States, there was nearly a total absence of myopia. A similar statement has been made in reference to the absence of near-sightedness among the American Indians. They have, on the contrary, been always noted for their very sharp, distant vision. When the public-school system has been widely introduced among these primitive people, as is now being done among the colored population of the South, it will be found that with book knowledge will come eye defects as a regular sequence. American children of mixed, native and foreign parentage now start school life in the large cities with an aggregate of about 3 per cent. of near-sightedness, while the similar schools in Germany exhibit 11 per cent. of near-sightedness among the primary classes of young school children. We have already stated that children of German parents in America give the largest percentage of myopic children to our public primary schools.

From these data, we prove not only that inherited eye troubles are greatest among the German population of any country, but that among all cultured nations this inherited disease, which the children exhibit before their eyes are taxed with any hard work, was at one time acquired by their progenitors on account of eye abuse. In countries where the eyes are most taxed in early life by forced education, and where this has been going on for some generations, we find marked evidences of the gradual eye deterioration, not only in the number of spectacled parents, but also in their young offspring. This state of things augurs badly for the coming generations. Luxurious living, and the desire to secure it for their family on the part of some, with the struggle for existence on the part of the masses, induces parents to accept the system of forced education for their children, and to prepare them for the great struggle by a very early beginning. In proportion to the study which these young people indulge in, their tendency to have yielding eye-balls is developed.

In analyzing with care the eye-sight of a large number of school children, and determining the cause of near-sightedness in connection with their daily mental work, it was dis-

covered that the idle escaped this heavy tax, which bore most heavily upon the most industrious. Let us take the series of public schools in St. Petersburg, where, according to Dr. Erismann, the aggregate of the children start with 13 per cent. of inherited myopia. He selected out of several thousand children all those who studied two hours a day outside of the school-house, and found, by examination, that among these studious little ones near-sightedness had increased already to 17 per cent. Of those who studied four hours out of school, 29 per cent. of them had become near-sighted; and of the most industrious, who worked at their books six hours at home to ensure perfect marks from their teachers, over 40 per cent. had injured their eyes, and needed concave glasses for distant vision.

This is a very serious exhibit, especially when it is considered that an eye thus injured never recovers from this bulging of its protective walls. It must remain ever afterwards, during the whole lifetime of the individual, a weak organ, exposed to many diseases which it would otherwise have escaped from, or not be liable to.

If these data be correct, and, unfortunately, we cannot make them otherwise, as they are capable of mathematical demonstration at any of our city public schools, are not the demands of a higher education threatening the eye-sight of the race? Myopia, which is a diseased condition of the eye, is immediately appended to the intellectual advancement of the growing population, and by them will be transmitted to their posterity. Each generation, in its turn, will increase the percentage of near-sighted children.

This proposition of transmitted, acquired diseased conditions has been questioned on fallacious data. It has been said that a defect acquired through an accident is not transmissible, and that should the children, from the time of Moses, have had the left forefinger of the left hand cut off, the present generation would still be born with a finger ready for the amputating knife. Such, no doubt, is the law of accidents, and fortunately the accidental mutilations of the body are not forecast in the successive embryos. But acquired diseases are not to be placed in this category.

Our first parents were, no doubt, types of health in every respect, with every organ properly formed and with perfect working power; yet, we find every species of inherited disease acquired by some of their offspring and then transmitted to after generations as the established condition of families. To a very appreciable extent, pathological changes do impress their kind or tendency on future generations, so that the facility to acquire seems to belong to certain families, classes, races or nations, although not exhibited by all the members of the family. Hence, when some peculiar pathological change in cerebral matter has sent the head of the house to a lunatic asylum, although insanity has not been heretofore known in the family, we would not be surprised to find it hereafter developed in one or more of the children under special circumstances. A parent dies of acquired phthisis. The family tradition up to this time gives no record of such diseases; hereafter it establishes itself, and becomes the recognized hereditary family weakness. The same can be said of cancer, weak throats and other acquired diseases. So is it with near-sightedness.

Human eyes were originally good, and among primitive races are still so. Under the pressure of early and close study, troubles first came, and are being extended to posterity as hereditary transmissions. From a cancerous parent, all children are not necessarily cancerous; so from a myopic parent all the children are not necessarily near-sighted, but, at the same time, all do not invariably escape. One or more will likely show the parental defect. Now bring in the forced education under defective hygiene, badly printed school-books, poor lights, etc., which has been clearly shown to create additional cases of myopia, and we see that there is good ground to fear that the coming race cannot have as good eyes as had their progenitors, and that eye disease must be on the increase.

A near-sighted eye is a weakened organ, and will ever remain so; and an excessive degree of near-sightedness often induces diseases of so destructive a character as to cause the loss of all useful vision, and may lead to

blindness. Should the acquired myopia of youth mark a great degree of yielding of the outer walls of the eye, the contents of this distorted eye-shell cannot avoid being seriously disturbed, to the detriment of the visual organ. If at the age of bodily maturity the eye has not yielded much, then the stiffening of the coats will protect against excessive changes, and the myopia may be arrested in its further progress. Should the eye-walls have bulged much before the sclerotic had attained its full resisting power, then the myopia continues to increase, which means a still further attenuation of the walls, and an increased structural weakening of the organ, with advancing age and the constant use of the eye in the ordinary avocations of life.

I have before said, that if myopia has not been acquired in the early years of school life, it is not likely to appear in the adult, however closely the fully matured eye is worked. Other eye annoyances may supervene in an over-worked adult organ, but myopia is not often found in this list. The needle woman, with matured eyes, can sew from early morning till near midnight, and the eye shell will perfectly resist this long kept up ocular congestion, although Sunday alone breaks the persistency of the ciliary muscular action, while weeks, months and years, and even a long lifetime, express the monotony of the every-day and all-day application.

In the young, growing, yielding eye-ball, we have seen that two, four, or six hours of steady application in acquiring book knowledge, not counting school hours, will have produced, respectively, 5, 15, and 30 per cent. of myopia, so that the tendency of myopia in the young can be measured with some certainty by the number of hours of close application.

All near-sighted persons, regardless of the cause producing the defective focusing, see distant objects as if in a fog. This fog increases with the degree of elongation of the eye-ball, or with the convexity of the lens, until even comparatively near objects have very blurred outlines. Many moderately near-sighted persons are so little inconvenienced that they are not aware of their defect until contrasted with the sharper sight of others. On the other hand, many who ex-

hibit a very advanced myopic condition, cannot define the features of a person placed three feet from them.

The first intimation that a child's eyes are defective, or are becoming so, come in the form of complaints that the distant blackboard in the school-room, which could be so distinctly seen last year, is now very much blurred when viewed from their accustomed seat, and that the teacher has had to move their seat nearer to the board so that the pupil may see what is written upon it. These young people also complain that they cannot see faces across the street, and that they cannot recognize their own parents at that distance. Now that the child has called attention to some growing defect in the eyes, it is noticed that in studying at home the book is held much nearer to the face than formerly. If the parents are themselves near-sighted, they recognize the trouble in their child from their own familiar foggy outlines of distant objects. They first test them with the glasses which the parent wears, and if distant objects come out boldly a similar pair of concave glasses are given to the child.

By this course the parent may possibly be acting in a judicious manner towards his child. In by far the majority of instances, however, the supplying of concave glasses to the child without a careful and thorough examination of the eyes by some one skilled in this work, would entail permanent injury. The myopia in this case need not be a congenital acquisition, and the over-work to which the young eyes have been subjected may not yet have caused organic changes in the walls of the eye. The child may be strictly one of that very large class of young persons who are only *acquiring myopia through permanent spasm of the ciliary muscle*, and the case is not so far progressed but that it can be promptly and permanently cured.

Such a child may exhibit most of the signs of near-sightedness, but they may all be fictitious. She may have very defective distant vision, and yet not be a confirmed myope. The carefully prepared test types, which should be readily made out by a perfect eye at twenty feet, may not be read by her at the distance of ten feet, or even of five feet. The optometer for measuring the range of accommodation, may

show clear vision for only very near objects. Even the ophthalmoscopic examination may indicate myopic refraction. All of these evidences of myopia in children are not conclusive, and may be fallacious, unless the atropia test be also applied. If, when the eyes have been saturated with a solution of the sulphate of atropia, grs. iv, to 5j of rosewater, they yet show no change from the standard already elicited by the test types and the optometer, then the existence of myopia has been positively determined, and the correcting concave glasses for distances should be prescribed. The various mydriatics, of which atropia or duboisin are the best, are an essential element for determining the presence of permanent near-sightedness in children. No eye-glass should be given to a child without testing the eyes with a strong atropia solution. *Most near-sighted cases in children commence with ciliary muscular spasm, which resembles myopia so closely as to be readily mistaken for that form of defect which is caused by an elongated eye-ball.* In all of these cases, and they are very numerous among school-children, the free local use of a strong solution of atropine can alone solve the problem. In no case can this eye-drop do harm. By expanding the pupil and paralyzing temporarily the ciliary muscle, it will put a stop to all reading, and will compel the little patient to take the so much needed eye rest. In a few days, the effects will altogether pass off, and the eye will resume its former activity and acuteness of vision.

The following case will illustrate this defective condition of eyes among many school-children, and is given as a typical instance of how fictitious near-sightedness is brought about by ciliary spasm. This muscular spasm is a way station in the development of permanent myopia, to which organic change it will surely lead if not recognized in time, and the proper remedy used for its arrest:

Sarah M., aged 13, a girl in good health, has complained for the last three months of pain in the eyes, and not being able to see the blackboard from her seat in school. Last year she had no such difficulty, and she could detect any distant object that any other schoolmate could see. The eyes of the children in her class at the public school had been examined last season by a specialist in eye diseases, and she

was put among those who had good eye-sight, both for distance and for near objects. She was not aware of any eye defect until she was moved up to a higher class. From the beginning of the present session, she has been applying herself much more closely to her studies. Besides the school hours for recitations, she devotes to study all of the afternoon, and often evening hours until bedtime, at 10 o'clock. The print in some of her books is very fine, and the paper of which the book is made is so thin that the type shows through the page. Her map questions annoy her much. She had been at this hard work for six months when she noticed that her eye-sight was becoming defective, and that distant objects were as if in a fog. In blackboard recitations, she had been compelled to ask the teacher to allow her to sit nearer to the board. At first this change of place answered very well, but now, even at the nearer seat, the figures are as indistinct as they had been two months ago from the more distant bench. She thinks that resting her eyes makes her see a little clearer, and that on one occasion recently, when she had to be absent from school for one week, she could see much better the blackboard figures upon returning to school. A very few days' study brought back the cloud, and also the pain in her eyes, which she had not felt during her short absence from school. It seems to her that the sight is getting worse every day. She is complained of at home for inattention, when she really cannot see the expression of one's features across the table. She has tried a pair of near-sighted glasses belonging to one of the school-girls, and sees beautifully with them. Her father, not wishing to purchase a pair of eye-glasses for her without knowing the exact number which her eyes require, preferred first to consult a specialist. I examined each eye for distant vision, and found that letters which a good eye should readily read at one hundred feet, could only be seen by her at eight feet—a reduction of her distant vision to $\frac{8}{100}$ of the normal, and what hers ought to be. She reads fine print readily at the usual distance of one foot. Looking through a ten-inch lens at some fine print, she could only read it when it was approached to within six inches of the eye. From the six inch point to four inches she could read readily, but not beyond these limits. Two inches through a ten-inch magnifying glass measured the extent of her accommodation.

The careless observer would say at once that here we had a case of progressive myopia requiring a fifteen-inch concave

glass for its correction, and would, therefore, prescribe this number of spectacle through which she can see letters marked for 20 feet at 20 feet, and, therefore, by aid of which she had distant vision perfectly restored. Before doing this, however, a careful doctor would prefer making an ophthalmoscopic inspection to see whether the interior of the eye exhibits any evidences of a posterior yielding.

The lengthening of the antero-posterior diameter of an eye usually shows itself by an irregular, whitish mottling on the temporal side of the optic nerve entrance—a commencing atrophy of the choroidal boundary of the disc, called a crescent. In incipient myopia, there is no sharply-defined outline to this crescent, and the whitish mottling is restricted to a narrow half zone. In the course of time, the outline of this half moon sharpens, and by extending in area, indicates that the near-sightedness is decided and permanent.

In the case of Miss M., the optic nerve entrance was sharply defined and uniformly round, showing that the ophthalmoscope revealed no cause for her short sight. The rapidly-increasing near-sightedness, and the usual additional application since the new school term, based upon a good eye of six months back, leads me to suspect that the apparent myopia is of that fictitious kind induced through spasm of the ciliary muscle. If not recognized and judiciously treated, this leads to organic changes in the eye-ball, and becomes a case of confirmed myopia. To determine this most important point, I instilled into each eye a four-grain solution of the sulphate of atropia—the patient lying upon a lounge, so as to allow the drops to remain for a few minutes in contact with the cornea for absorption, and to produce their full action. At the end of an hour, the pupils were found much enlarged, and distant test types could then be much more readily seen. She now read No. 30 at 20 feet, and by the aid of the optometer, with a ten-inch lens, the near point had receded to 8 inches, she reading from 8 to 9 inches. The degree of visual range, which could still be exercised, showed that the ciliary muscle had not yet been altogether relaxed, and that by its action the too great convexity of the crystalline lens was still kept up. The patient was given a small quantity of the four-grain atropia solution, with instruction to drop it in the eyes three times a day, and to return on the morrow for inspection. At the next examination,

after four more instillations of atropia, she complained that her vision had again become misty, and that nothing was clearly seen. She could not make out any kind of print, and standing at 20 feet from the test types, she can only see letters which should be read at 70 feet. She was now tested with the ten-inch optometer, and her nearest and only point for reading was at 15 inches from the lens. *The atropia action in her case had solved the problem, and had dissipated the fictitious myopia.*

By this valuable test the patient was proved to be not near-sighted at all. She was, on the contrary, over-sighted—a condition known as hyperopia—just the antipode of myopia. Nature had made her with an eye too short in its diameter behind the pupil, necessitating some effort to focus even distant light, which is just the opposite of the long eye of myopia. As long as the eyes were not called upon for much work, this defect in the construction of the eye was not felt. When greater demands were made by more studious habits, and the ciliary muscles were inordinately taxed to make the lens very convex to cover the defect of shape in the eye-ball, then muscular irritability ensued, and finally the muscles became spasmodically contracted, as a permanent state. They would not relax during the short interval of rest from study, and hence the lens kept too convex—lost all of its ability to condense distant light. In its fixed, abnormal condition of excessive convexity, it could only focus light from near objects, and became, on this account, practically a near-sighted eye. When the ciliary muscle had been temporarily paralyzed by the atropia, we could examine the eye in its normal state, and find that, instead of requiring a concave lens, as heretofore believed, the very pair of friend's spectacles, which yesterday helped her so much in seeing distant objects, now blurs them the more. A thirty-inch convex glass was the one which, in the dilated condition of the pupil, cleared up distant objects, and restored her to $\frac{2}{3}$ vision.

The course to pursue with this young lady, to prevent her from becoming near-sighted, was very clear. Remove some of the strain from the eye muscles by doing some of the condensation of light for them. The magnifying glass, with which she can see most distinctly distant objects when the eye is fully under the effects of atropia, is the glass which she should wear at all times, both for walking and reading, and they should be put on at once. Gradually the effect of the atropia will pass off, and in ten

days she will be able to read again and resume her school work with her spectacles. The ten days' rest has done her eyes immense good. It has enabled the long-continued congestion to pass off, and has put the eyes in a much more healthy condition for work. After wearing the magnifying spectacles for some weeks, she can discard them for walking, provided she never studies without them. At the end of school life, she will be able to discard glasses altogether, and will find her eyes strong for all ordinary uses, without the help of spectacles.

Suppose, under bad advice, or by her own selection, the myopic glasses, which seemed to her so useful, had been adopted. The true condition of over-strain would not have been discovered. The momentary clear vision, produced by concave spectacles, would have become so dim in a few days or weeks as to necessitate the use of stronger lenses. The eyes, constantly under congestion, and with increased straining on the part of the ciliary muscles, would have become painful, and would finally have given way by the yielding of the protective coats. The result would have been a progressive myopia, organic and not functional in character, and therefore a permanent eye defect.

The case of Miss M. is the history of thousands of industrious school-children, anxious to excel in their recitations, and daily stimulated by ambitious teachers, thoughtless of what physical injury they inflict upon their scholars, provided long lessons can be accurately committed to memory.

Should Miss M. be allowed to follow the course which her teacher would map out for her, and had neglected professional treatment for her eyes, it would be a very easy matter to foreshadow her future, for we are frequently called upon to examine just such neglected cases. She perhaps would have had the one great transient satisfaction of receiving on graduation day the highest award of the school. She would have entered the world very wise as to school-book learning, but with poor health, a pale face, and with the knowledge that she has a pair of eyes which resent, with pain, any long-continued use. Without concave glasses, the outside world is a blank. Without them, her friends are not recognized as they pass her on the sidewalk. A few years may have

elapsed since school days closed, and much of the book-learning has been forgotten, because not wanted in the practical affairs of every-day life. But the eye discomfort, acquired in the ardent desire to have perfect lessons, is ever present, and pregnant with anxieties for the future. Whenever impaired digestion, the sequel of sedentary habits, makes her nervous, spectra of losing vision haunts her. The inducements held out to her of being the prize scholar has turned out an empty honor, which has embittered her life.

When the attention of the medical friend of the family is called to the growing near-sightedness of children, instead of suggesting near-sighted glasses, it would be well for them, in every instance, to see the effect of a strong atropia solution on the eyes. This atropia drop will never do injury in such cases. The rest from study, which the belladonna alkaloid will ensure, will be in itself a great comfort to the over-taxed organ. If distant vision improves when the pupil becomes thoroughly expanded, showing conclusively that the near-sightedness was of that delusive, fictitious kind induced by the over-straining and long-continued spasm of the ciliary muscle, then a weak magnifying glass, to be used for all near work, will prevent a return of the annoyance, especially if there be some relaxation from and diminution of too much study.

This simple treatment of belladonna application, with the rest it gives to the fatigued organ, and with the valuable information which it elicits, can never do harm. *It alone will be the means of preventing in children thousands of cases of apparent myopia from becoming permanent, life-long defects.*

Among patients which a specialist is daily examining, he very often finds cases which the following description will fully cover:

James H., aged 16, recently promoted to a collegiate institution, has been a special favorite with his teachers on account of very studious habits. For some time he has been aware that his eyes were weak, as he often has headache and pain in the eyes from study, also that his distant horizon had become much befogged. This was not the case three years since, when he often tested his eyes in detecting small, distant objects during his many steamboat excursions. For the

past two years he has been much of a book-worm, and has been encouraged to use all his time not absorbed by his lessons in desultory reading. His greatest annoyance at present is during blackboard recitations, especially in algebra. Unless standing near the blackboard, he cannot detect a single character, and is often placed at disadvantage before his classmates on account of his defective vision. In reading, he has no trouble, and does not hold the book nearer than the usual distance of twelve inches. Near-sightedness is not a family defect. He is one, the eldest, of four children; all the others with good eye-sight. His parents have no eye defects. Examined by the test types, he has only one-sixth of the normal distant vision. Figures to be seen at 100 feet by good eyes, he approached within 15 feet before detecting them. In drawing his eye-lids closely together, so as to convert the palpebral fissure into a linear split, he sees distant objects much better. Under the local use of atropia, no material improvement is made in his distant vision; and although the newspaper print is somewhat blurred, he can still make it out. Concave glasses clear up his distant horizon. The ophthalmoscopic examination indicates a myopic reflex of the retinal vessels, and shows that an irregular, whitish, mottled area of choroidal absorption extends for some distance on the temporal side of the optic nerve entrance. This choroidal atrophy has already been referred to as a crescent, and denotes the fact of an established myopia by the posterior bulging of the eye-shell. It also indicates that the near-sightedness has been acquired by the over-use of the young, soft, yielding, growing organ. As the mottling is not sharply limited by healthy red choroidal tissue, but is irregularly scattered for some distance around the optic disc, it is also an indication that the case is one of progressive myopia, and that close application will increase the troubles. The concave eye-glass becomes an essential to Master H., and has already established itself as a life-long appendage, never to be discarded if clear, distant vision is to be desired. The eyes of Master H. have been already seriously and permanently damaged by too close application to books, and if, under bad advice, his ambition to continue over-study is stimulated, it can only be at the expense of this most valuable organ, which must hereafter be called a diseased eye. He is now laying the foundation for future trouble, and possibly, in the end, loss of useful vision. His best course, for the safety of his eye-sight, would be to give up study for the present, and take up some out-door

occupation until such a time as the choroidal atrophy should become sharply defined, and the sclerotic coat relieved of constant congestion. When the coats of the eye, after one or two years of out-door life, become firm, he may resume study with much better prospect of keeping good eyes in his advanced age.

These two reported cases, that of Miss M. and Master H., form the bulk of the material for acquired myopia among young scholars, the first preparing to become near-sighted and the second progressing rapidly in it; and it is between the ages of 8 and 18 that most cases of myopia acquire their near-sightedness.

We have so far thrown out that small list of hereditary myopia where children are born with eyes already too long in their antero-posterior diameter. Such eyes, although weak in configuration, are not necessarily diseased; but, if pressed with head work while still young, they are predisposed to give way with what would be called progressive myopia. These need concave glasses to see clearly distant objects at even an early age.

We find a fourth form of acquired myopia. This time it is with old persons, in good health. They cannot accuse their eyes of over-work. On the contrary, they have never over-taxed the eyes at any time from childhood up. The following case will represent this very interesting form of the eye defect:

Mr. S., aged 75, a case in point, has gone through life with no eye discomfort. He found, at the age of 45, that he could not read fine print with his former facility. Marginal notes he had to abandon, even when he could enjoy the strong light of an open window. For evening reading the selection of a good, bold print was a matter of some importance, and newspaper reading at night had been discarded. He was advised at that time to get the magnifying glasses which the beginning of old age requires. With the use of these he found much solace. By their instrumentality, he had been able to resume night-reading, which he has steadily kept up. From time to time, he has changed the spectacles for stronger ones. Commencing with No. 48 magnifying, he changed them every two or three years, using, respectively, those which focus at 36, 24, 18, 14, 12, 10, and finally at 8 inches. The last strong spectacles he has used since he was 68 years

of age. Two years since he discovered that in reading with his glasses he had to hold the book very near to his face, and one day, taking up the newspaper, he found, to his surprise, that by holding the print at a distance he could decipher it without his glasses. For the past two years he has discarded spectacles for reading altogether, and has rejoiced in the restoration of a second sight. For the past twelve months he has become aware that the faces of friends across the street are not so easily detected as formerly, and he often passes persons unintentionally without recognition. It is this closing in of his area for distinct vision that has induced him to seek advice.

I find that Mr. S. has suffered no eye pain at any time, and that this recently-acquired short sight is his chief discomfort. He reads book print at the usual distance of 12 inches without much difficulty, and does much of it during the day. When tested by the larger type from the distance at which he is sitting, 18 feet, he could only read off specimens of type which can be readily seen by a good eye at 100 feet. His near, clear sight and distant, foggy vision establishes in his case myopia, and that evidently acquired within the last six months. I used atropia with him, and his distant vision did not clear up in the least, whilst his near vision became disturbed. The ophthalmoscopic examination explained to us the cause of the error of refraction. In the retina and choroido-schlerotic coat, around the optic nerve entrance, we found no changes from the normal condition. It was in the lens substance that the alterations were found. Upon the very edges of the crystalline lens, in that portion of the periphery usually covered by the iris in the ordinary contracted state of the pupil, I saw one or more delicate black lines, resembling cracks in a pane of glass. They extended from the margin towards the centre of the lens, and in the direction of the pupil.

These lines may streak but one side of the lens border, or they may be more or less disseminated around the entire outer margin of the lens. Sometimes there is but one single dark stripe, not more than one or two lines in extent, which mars the complete transparency of this brilliant body. That single flaw is, however, enough to explain the near-sightedness, and will, with certainty, foretell that in time a cataract will develop in that eye, of which this line of fatty degeneration or organic change is the sure forerunner.

The privilege of second sight, unless it appears at a very old

age, is seldom an enjoyment of long continuance. Should this privilege be secured before 70, it foreshadows cataract blindness not very many months or years ahead. When second sight appears in persons of 80 and upwards, although it is of the same pathological significance, the lens changes are so very slow that general senility may carry off the person before the opacity in the lens has made sufficient advances to be annoying.

In these cases of acquired myopia in old age, an explanation is found in the fact that the lens of a person growing old is condensing, dessicating, and therefore shrinking. It is this flattening which goes on perceptibly from 40 to 70 years of age, and which necessitates with us the supplementing of the lens by spectacles. These increase in strength with the lens shrinkage. Preparatory to the formation of cataract in some of these old persons, the lens commences to imbibe fluid, and becomes more juicy. The fibrous tubes, of which millions are found in the many laminae of the lens, suck up fluid from the aqueous liquid from which it draws its normal supply of nourishment. This imbibition of fluid swells the lens within its elastic capsule so as to make of it a strongly magnifying body, only capable of focusing at short distance. For many months, the lens, altered in shape and made very convex, may retain its perfect transparency. After a while, opaque streaks and spots make their appearance in it, and in time the whole lens loses its clearness.

Concave glasses for a time will correct the excessive refraction for the acquired myopia of old age when the crystalline lens, by recent swelling, is preparing to become opaque with cataract. In the progress of degeneration of the lens substance, when light becomes impeded in its passage to the retina, foggy sight comes on for all objects, both near and far.

Of the five kinds of myopia which I have tried to describe, the last—viz., that coming on in old age—is the most rapidly progressive, and is that form of myopia the most speedily converted into very defective vision by clouding of the lens substance. The near-sightedness which follows upon the acquisition of the second sight, is only temporarily

relieved by the use of concave glasses, but it will finally be removed altogether by a successful operation for cataract extraction.

The second form of acquired fictitious myopia in young persons brought on by exciting the accommodating muscles within the eye into a more or less permanent spasmodic contraction, is to be detected through the relaxing influence of a strong solution of atropia. The constant wearing of a suitable convex eye-glass for all near work will prevent a recurrence of the muscular spasm and cure the apparent myopia.

The congenital myopia, which is a mis-shaped eye, inherited from near-sighted parents, also that more common form of eye bulging, the result of long-continued congestion kept up by too long neglected over-work of the eye muscles, can only be corrected by the judicious selection of concave spectacles. These are to be worn, in most cases, only for distant vision. If the case be one of excessive elongation of the eye diameter, requiring the book to be held within six inches of the face when reading, a weaker concave glass than the one used for distance will be necessary to enable the book to be held at from 12 to 14 inches. This weak spectacle may be constantly worn.

There is no sanitary question at present exciting the attention of the medical world of greater interest than the hygiene of the eyes. How shall we take care of the eyes of the growing race so as to keep them in the good condition with which they start life? is the most absorbing subject. With very few exceptions, nature makes the eyes right. Injury usually comes to them from abuse, especially during school life, in acquiring book lore, most of which is discarded as soon as the scholars control their own actions.

Near-sightedness is the diseased condition which over-work at school engenders. By the judicious selection of school-rooms, books and studies, much can be done to prevent this disastrous consequence to the growing race, and to the next generation.

That acquired myopia can be afterwards transmitted to offspring is too often seen to be doubted. A case in support

of this statement has just consulted me, and her family history is that of many others :

Mrs. B., of Ohio, aged 57, has been near-sighted from childhood. Both of her parents had excellent sight. She was a precocious child, and when still very young became engrossed in books. At a comparatively early age she put on near-sighted glasses, and has worn them as her constant companion throughout her adult life. She now has on excessively strong concave spectacles of two inches focus, and even these give her very little of distant vision. Her eyes are now so much affected that she can no longer read small print ; and they have given her much pain of late. The right eye, which, for many years, has been her chief dependence, has recently given out entirely. The left eye, for a long time considered very weak, is now her only useful visual organ. An ophthalmoscopic examination explained her defective vision. Around each optic disc there was a large area of choroidal atrophy, which always means retinal destruction over such atrophic spaces. This condition of great stretching in the right eye had lead to detachment of the retina at the yellow spot for central sharp sight, and has made the eye permanently useless. In the left eye the choroidal atrophy was encroaching also upon the important retinal centre, so that this eye also is threatened with destruction at no distant period. All of this serious injury can be traced to the yielding of the eye-walls from over-work in childhood. She is the wife of a gentleman who has perfect eye-sight. By him she has three children, only one of whom has good eyes ; the other two have been near-sighted from early life. In this instance, at least, the mother's acquired eye defect has been directly transmitted to two out of three children.

The hygiene of the eyes should be carefully studied by parents and by teachers. *Children in early years should not have their eyes taxed to their life-long injury.* If in many of our schools more time were given to physical culture, and less attempts be made to force intellectual development, there would be less eye tax, and consequently fewer eye defects. In most cases it would be far better to restrict study hours rigidly to school hours, and leave the books in school, to be resumed on the following morning. The amount of indifferent and often useless knowledge, acquired by the over-work of the eyes of school children, is a very miserable re-

turn for the life-long annoyance of weak eyes and acquired near-sightedness. These remarks are especially applicable to the education of girls. Very few ladies who receive the so-called higher education ever make it available for teaching. Many of the studies in the female high schools are of a thoroughly useless, as well as often of an annoying description. Algebra, geometry, the higher mathematics, and other studies equally useless to the majority of ladies, absorb many months of close and injurious application. After the final examination, these studies are most gladly dismissed, never to be resumed, and are very soon forgotten. Would that the effects upon the eyes, induced by their study with the diseased condition of acquired myopia, could be as readily thrown aside.

The uselessness of many of these studies was forcibly brought to my notice a few months since :

Mrs. W., a former patient, brought her daughter, 13 years of age, to me for treatment. The child had been advanced to classes beyond her age, and could be, with difficulty, restrained from reading, to the exclusion of all other domestic duties. Myopia had already become positive, and a concave glass was necessary for seeing at even short distances. While referring to the over-taxing at school, compelling night as well as day study, the mother had taken no steps to restrain this young child from so much eye work. She happened to remark that her eldest daughter, aged 18, was just about graduating at the Female College, and that she had come out among the first in her class of over 200 girls. She was glad that her daughter was about finishing her school education, as she had become very near-sighted, and often complained of pain in her eyes with headache. The lady referred with pride to the high grade which her daughter had taken in geometry and algebra. I suggested the remark that these higher mathematical studies were utterly useless to young ladies, as they were to most male collegiate graduates, and that they did not take the place of the simple mental arithmetic so valuable for every day use. I asked this simple question, Whether this educated mathematician knew if her change was correct in shopping? The mother had to confess that this part of her mathematical studies had been sadly neglected. It was expected that this young lady would in time have a

house of her own to manage, and not a class of pupils, and most of these two hundred young ladies who had gone through the same course of study expected to be similarly engaged in domestic work.

If a pupil, restrained when young, shows in maturing years any desire to study, one year's close application at the age of from 18 to 20 will advance an education more than several years of work in early life. At the age of 20, the eye-walls have hardened so that no amount of eye work is likely to make them yield.

Our present system of forced early education for both sexes offers some points for thoughtful consideration. Girls up to 15 years of age are, as a rule, brighter than boys, and can under similar circumstances, be further advanced in education. Of a more domestic turn, they take readily to books, and can be the more easily induced to study. At the age of 16 or 17 most of the female world is supposed to be sufficiently educated to fit them for society; hence, the last two or three years has been a cramming one at the schools, necessitating the use of all day light hours to secure good recitation marks. While the girls are at their studies, boys are on the play-ground developing their physical frames and laying up a store of vital force which will enable them to work harder during college life. Close mental and eye work with the youth usually commences at a period of life when the young lady leaves off. The maturing condition of the eye will explain why the education task of the girl from 13 to 16 is so much a greater strain on the eyes than that of the youth between 16 and 20, which are the years of college life. With the older persons, the eyes are becoming daily more firm and strong to stand work without detriment. The younger the eye is forced, the more readily it gives way. In Germany, where the forced education in very early years is the law of the land, myopia, or weak eyes, abound. In England, where the school life is of a more advanced age, near-sightedness is the exception. It is easy to draw a valuable moral from these data.

Fortunately, all children who study hard do not become victims to myopia. Would that none should become so.

Family medical advisers would act most wisely if they recommend that all annoying and useless lessons be stopped as soon as they find the eyes of children taxed to injury by their acquisition. When a young lady, who does not expect to be a teacher, finds her eyes painful and misty after some hours' application upon the closely and badly-printed school-book, better cast such a book aside, and devote that time to recreation in taking out-door exercise. A stock of general health is worth much more in the family circle than a knowledge of many useless books. It is far better that some should take book knowledge, which is not the most useful knowledge, in moderation, rather than obtain a large degree of brain development without a healthy body to sustain it.

ART. II.—Dowell's Operation for Hernia Illustrated by Three Cases Successfully Treated. By GEO. BEN. JOHNSTON, M. D., Surgeon to St. Sophia's Home for the Aged; Surgeon to St. Joseph's Female Orphan Asylum, etc., Richmond, Va.

Of the numerous operations devised for the radical cure of hernia, none possesses fewer objections than that invented by Dr. Greenville Dowell, of Galveston, Texas. It is simple, easily performed, requires no other instrument than a large semi-circular needle, applicable to all external hernia, and is free from the dangers which may and sometimes do accompany similar operations. It is performed after this fashion :

If the hernia be in a hairy region, the parts are first well shaven. The hernia is next thoroughly examined, and three lines drawn over it in its long axis—one immediately over the centre, and the others on either side of this middle line, varying in distance from it according to the age of the patient and the size of the hernia; the outer lines are to extend beyond the limits of the opening. These lines may be drawn with tincture of iodine. They serve only as guides to the proper direction of the needle. The large, semi-circular, double-pointed needle, with an eye in each extremity, is next armed with a strong silk ligature, to the end of which is at-

tached a strand of silver wire. The hernia is then returned into the cavity, if it be protruding, and the skin and superficial fascia over it are taken between the thumb and fore finger, so that the centre line will be held directly opposite the outer line, and, as it were, having their under surfaces facing one another. The needle is then thrust through the tissues held thus from the centre to the outer line, with the threaded end first. When the unthreaded end has come between the folds of skin the hold is relaxed and the point of the needle remains in the cellular tissue below. Next, the fore finger of the disengaged hand is introduced into the opening to act as a guide to the instrument and a protector of the viscera within reach. The point which is engaged is then pushed through the walls of the cavity at from a quarter to a half inch outside the opening. This puncture lies immediately beneath the outer line. With the finger as a guide, the point of the needle is carried across the orifice, and driven out at a corresponding point on the opposite side—the needle emerging through the inner line. The needle is then drawn steadily on until the engaged point has passed through the walls, and rests just under the skin, which is again grasped—this time making the under surfaces of the needle and inner lines face. Here the threaded end of the needle is made to leave the wound at the point of penetration, and we have thus thrown a suture entirely across the hernial orifice. The silver wire is drawn in place, and this stitch repeated as often as the exigencies of the case demand. The ends of the wire are crossed, and firmly tied over a bit of soft wood, cork, or a little roll of adhesive plaster, and the parts properly secured by compresses and a bandage. The peritoneal cavity is wounded, but this seems to make no difference, according to the author's experience. We have now a hold on the margins of the opening, which enables us to bring them into juxtaposition and secure them by our wire suture. Enough of inflammation is produced by the presence of the wire to cause an exudation of adhesive material sufficient to agglutinate the parts so firmly that when this product is thoroughly organized, the parts are found in a condition similar to that which existed prior to the rupture. Until this takes place, a

suitable truss is worn to afford support to the yet weak tissues.

I quote from Dr. Dowell's book on Hernia :

I. Points that should be especially attended to in the operation :

(a) The bowels should always be moved three hours before the operation.

(b) The body should always be in a horizontal position, with the hips above the head, and legs slightly flexed on the thighs.

(c) Hernia should be carefully reduced.

(d) Patient should be thoroughly anæsthetized. * * *

(e) Needle should be started from the ventral or median side in all cases of inguinal hernia. Wires should be pulled with waxed thread, as in vesico-vaginal fistula.

(f) Wires should not be left in longer than the eighth day, and a support used afterward, either by truss or bandage, and patient kept in bed for ten days at least, after wires are taken out. * * *

(g) From a quarter to a half inch of the sides of the orifice should always be included in the wire.

(h) Bowels should always be moved before wire is taken out. * * *

II. Points to be especially avoided :

(a) The spermatic cord must be pressed downward, and not included in the ligature.

(b) No immovable part, such as the ilio-pubic ligament, should be included.

(c) The adjacent arteries and nerves should be avoided, if possible, in crural and inguinal hernia.

(d) The ligature should always be tight on both sides, showing that the tendons are well included.

(e) No plug must be left in the loop of the ligatures to be pressed into the rupture, thereby preventing serous walls from firmly uniting.

(f) The needle should have free play in passing across the orifice internally, so as to be sure that no omentum or intestine is caught by its point and transfixed.

(g) Patient should not be allowed to get out of bed while the wires are in, nor for five or six days after they are taken out. * * *

(h) There should be no puckering on the right or left side of the first puncture.

(i) Patient should not be allowed any solid food, or very h diet, while under treatment; milk and soups are best."

The author thinks that a proper performance of his operation, with a strict adherence to the above injunctions, will cure all cases which are amenable to treatment.

Dr. Dowell gives the results of ninety-six cases operated on, viz.: cures, 80 ; failures, 16. I desire to record three successful cases :

CASE I.—*Umbilical Hernia*.—Lizzie, a small, badly developed, scrofulous negro child, 15 months old, was brought to me in January, 1877, with an umbilical hernia. Examination revealed a tumor the size of a large walnut, soft, compressible and readily reducible, and evidently containing only intestine. The size of the tumor was nearly constant; considerable pain was induced by manipulation. The child walked with an unsteady, tottering gait; the body inclined decidedly forwards, and the arms folded across the upper part of the abdomen. This position was assumed to relieve the constriction of the neck of the hernia when the abdominal muscles were put upon the stretch. She had chronic diarrhœa, and was exhausted by the smallest physical exertion. The opening through which the gut came would admit the first joint of the index finger. Upon a second examination, I advised an operation, which was agreed to. Preparatory treatment consisted mainly of food and tonics, together with some simple remedy to control diarrhœa. By February 7th, she was in a fit condition to undergo the operation. Oil was administered on February 6, and an enema was given next morning. The child was chloroformed by Dr. Wm. White. The operation was performed as described above—one stitch being enough to secure the proper position of the margins of the opening. A proper compress and bandage were adjusted, and the child was placed in bed. Perfect quiet was ordered, and opium was prescribed to further this end and obtain rest to the bowels.

Feb. 8. Saw child at 11 A. M. Doing well. Had passed a comfortable night, and was easy.

9th. Passed a good night, with the aid of opium. Some swelling and redness about the wound, with moderate pain on pressure. Tongue slightly coated. Bowels had moved during previous night, without much disturbance or pain.

10th. Symptoms unchanged. Bowels moved twice since last visit. Substituted Dover's powder and bismuth subnitrate for opium. Valentine's meat juice and milk ordered as only articles of diet.

11th. Patient doing well; not so much swelling or pain. Bowels quiet; appetite returning.

12th. Still improving. Pain less; swelling decreasing. Slight discharge of pus from the site of suture.

13th. Steadily improving. Scarcely any pain or redness. Suture loose, and came away without any trouble. Compress and bandage retained as support for the parts.

I did not see the child again for three weeks. It had improved wonderfully. It was fat and healthy-looking, and its condition was in every way improved. Three months have now elapsed since the operation was performed. The child continues well. Its gait has improved amazingly. Its diarrhoea is gone. There is a firm, hard cicatrix beneath the umbilicus, and no sign of the opening can be detected.

CASE II.—*Inguinal Hernia*.—Dec. 1, 1878, Willie, a robust little white boy, four years old, has a large, congenital inguinal hernia on the right side.

Dowell's operation was performed, after the usual preparations, in the amphitheatre in the Retreat for the Sick, in the presence of a part of the medical class of the Medical College of Virginia, and assisted by my friends, Drs. Cunningham, Ross, Nicolson and others. The operation differed in no essential from that described above. Only one stitch was required to close the opening. A compress and spica bandage were applied, and when the little patient had recovered from the chloroform, he was taken to his home, several squares away, in a carriage, and put to bed. Opium and rest ordered; milk and soup as diet.

2d. Slept well; had gotten up during the absence of his mother, and partaken freely of exercise and peppermint candy; was spanked and put back to bed. Complained of no pain, and had no swelling or redness about the wound. Temperature, 99°F.; pulse nearly normal.

3d. Condition about the same as on yesterday, with the exception of a slight blush in the region of the suture.

4th. Slept well during night. Bowels moved this morning; rather thin, watery stool. Temperature and pulse normal; no pain; no swelling.

5th. Condition unchanged.

On the eighth day, Dr. Nicolson and I removed the suture and applied a firm compress under a spica bandage. This dressing was preserved for several days, when it was exchanged for a light truss with a very soft pad, which was

worn for a couple of months, at the expiration of which time the patient was discharged cured.

CASE III.—*Incomplete Inguinal Hernia*.—I operated on Case III through the courtesy of my friend, Dr. L. B. Edwards, and Dr. Humphreys, resident surgeon at the Retreat for the Sick, made the following notes of the case: "Seaman John Welch, colored, age 23 years, strong, large man, admitted to hospital March 27th, 1880. Diagnosis—Incomplete inguinal hernia of left side. Operation performed April 9, by Dr. Johnston, according to Dowell's method; one suture only. Anæsthetic, chloroform.

April 10. Rested well during night, after a dose of tincture of opium. Slight fever, and some swelling at wound; moderate pain on pressure.

11th. Did not rest well on account of an incessant cough. Gave a cough mixture, which relieved him some. Swelling, and pain on pressure. Some fever. Tongue coated. Slight headache.

12th. Rested very well. Considerable swelling, with pain on pressure. Tongue coated. Slight fever. Bowels opened with castor oil. Two free and copious actions without pain. Appetite good, and smokes pipe continually.

13th. Slept moderately well. Cough still troublesome. Swelling and redness, with a slight discharge of pus from the site of suture.

14th. Increased redness, with more swelling than usual, and constant pain. Did not sleep. Opium given freely, and cold applications used.

15th. Cough troublesome. Pain great; did not sleep. Discharge of pus on pressure. Loss of appetite. Gave chloral and morphia.

16th. Slept very well. Pulse 80; temperature $101\frac{1}{4}^{\circ}\text{F}$. Sutures removed. A small slough had formed under the cord over which the suture was tied. Compresses soaked in a solution of carbolic acid, and retained by a spica bandage were used.

On the 22d, the patient was allowed to walk about the room. Appetite excellent, and wound entirely healed.

I have had the opportunity very recently of examining Cases I and II, and find them absolutely cured. Case III has been seen by Dr. Humphreys, who pronounces him cured also.

ART. III.—**A Case of Chronic Cystitis Complicated by Papillary Growths in the Female—Remarks.** By GEO. T. HARRISON, M. A., M. D., Assistant Surgeon to the Woman's Hospital of the State of New York, etc., N. Y.

Every experienced gynaecologist must have had reason, at one time or another, to lament his limited resources, whether in diagnosis or therapeutics, when called upon to meet the difficulties inherent in many forms of chronic diseases of the bladder in the female. It was therefore a subject for thankfulness when the late Dr. G. Simon, in 1875,* gave us his perfected method of exploring the female bladder by rapid dilatation of the urethra. As usual, in such circumstances, when a novel procedure is brought before the medical public, some would extend its range of application, and set up extravagant claims for its utility, while others, fixing attention upon its abuse,† would expunge it altogether from the list of our diagnostic and therapeutical resources.

In seeking to arrive at the truth when such diversity of views perplex the earnest student, it seems to me well to carry into our scientific investigations and discussions the spirit so eloquently inculcated by St. Augustine, with respect to theological questions. "If we read anything," he remarks, "which may produce diverse opinions, without damaging our faith, let us not rush impetuously, by positive assertion, to either the one extreme or the other; lest, when a more thorough discussion has shown the opinion, which we had adopted, to be false, our faith may fall with it; and we should be found contending, not for the doctrine of the sacred scriptures, but for our own—endeavoring to make our doctrine to be that of the scriptures, instead of taking the doctrine of the scriptures to be ours." Furthermore, we would do well to hearken to the admonition of Lord Bacon, who observes, that "the kingdom of men found in science is like the kingdom of God; it can be entered only in the character of a little child." Entertaining the sincere

* *Ueber die Methoden, die Weibliche Urinblase Zugänglich zu Machen*, 4, S. W. Von G. Simon.

† Vide Emmet's *Principles and Practice of Gynecology*, p. 732.

conviction that candid and unbiassed investigation will confirm the validity of the claims of Simon's method to be considered extremely valuable, both from a diagnostic and therapeutical point of view, though having no desire to dogmatize, I proceed to the narration of a case where its adoption afforded most gratifying results.

November 21st, 1879. I was consulted by Mrs. B., a native of Italy, but a resident, for several years past, of this city. She gives the following history of herself: She is 35 years of age, and has been twice married; had two children by the first marriage—youngest is nine years old; since her marriage to her present husband, she has been sterile; menstruation recurs regularly, but is painful; suffers with pain in the back, dragging sensations in the groins; supra-pubic pain; leucorrhœa also complained of. Her chief symptoms are, however, referable to the urinary bladder. Micturition is very frequent, to such a degree that her sleep at night is not refreshing, being compelled to rise so often to satisfy the urgent demands to pass urine. The last few drops are squeezed out with a painful effort (*tenesmus vesicæ*). She notices that she occasionally emits a few drops of blood after the passage of the urine; at the bottom of the vessel into which the urine has been passed, she observes also a thick, tenacious, rosy material. The countenance of the patient exhibits signs of extreme suffering; she is, moreover, pale and anæmic. The bladder symptoms have existed for seven or eight years, though they have increased in intensity during the last year. She has been under medical treatment, but no benefit accrued from the measures adopted for her relief, though she says she has expended a great deal of money. Examination *per vaginam* reveals the fact that the uterus is retroflexed and somewhat enlarged. Exploration of the bladder by the sound showed that viscus to be very sensitive, and especially so at the neck. As there was here a case of chronic cystitis, localized mainly in the trigonum, in addition to a retroflexed uterus, the treatment indicated seemed obvious. The uterus was accordingly restored to its normal position, and maintained *in situ* by a well-fitting pessary, which was accomplished without difficulty; with reference to the bladder affection, I relied almost entirely on topical treatment. To this end I made use of a glass funnel, which I have employed for some years past, after the analogy of Hegar's method in washing out the rectum and large intestines. The funnel is inserted into one end of a piece of rubber tubing two feet or more in

length, at the other end of which is attached a silver catheter, or, as I have sometimes preferred, a glass tube. Introducing the catheter into the bladder and elevating the funnel to the height of less than a foot, the fluid in the funnel will flow into the bladder. By sinking the funnel below the level of the bladder, its contents will, of course, flow out. After using injections of hot water, to which carbolic acid was added, (at first a weak solution and then a stronger one) and not meeting with the success I hoped for, I used injections of salicylic acid (1 part to 1000 of water). This treatment was continued through several months, with the effect of relieving the symptoms to a considerable degree; but as the patient was becoming discouraged at the slow progress made, I felt it necessary to resort to more radical measures. One of two alternatives presented themselves, either to open the bladder from the vagina and treat the disease according to the method which Dr. T. A. Emmet has practised so long with success, and which is now well known, or else to have recourse to the method of Simon. The first I discarded, one overpowering reason being that I did not think the patient would consent to the performance of the operation. I was therefore necessitated to adopt the second.

On the 14th of May, therefore, assisted by Dr. Hathaway, who gave ether for me, I proceeded to dilate the urethra. Simon divides his procedure into three acts. The first is the incision of the external orifice; the second, the dilatation of the urethra proper by conical plugs which he had constructed for the purpose; and the third is the penetration of the forefinger through the urethra into the bladder. The first step or act is a very important one—as Simon reminds us, the external orifice is the narrowest and most unyielding part of the urethra; he therefore makes two lateral incisions through its upper edge to the depth of $\frac{1}{4}$ ctm., and an incision below, through the urethro-vaginal wall, to the depth of $\frac{1}{2}$ ctm. These incisions are best made, according to Simon, by the scissors. They are very important, in view of the advantages accruing from their employment. In the first place, because the danger is avoided of a laceration of the edge of the orifice or of the mucous membrane, more deeply situated, as now there need not be force used to pass the orifice; and secondly, because the finger can be introduced further into the bladder, as in consequence of the incisions, the urethra is shortened $\frac{1}{4}$ to $\frac{1}{2}$ ctm., corresponding to the extent of the sections. For the execution of the second act, Simon made use of dilators manufactured of hard rubber, of seven differ-

ent sizes, the smallest $\frac{3}{4}$ ctm. in diameter, the longest being 2 ctm. After dilating the urethra by the use of these instruments, one after the other, which is very easy of accomplishment, as the urethra behind the orificium is very dilatable, the operator advances to the third act. This is effected by introducing the fore finger through the dilated urethra, the middle finger of the same hand being simultaneously introduced into the vagina. With the other hand, the vertex of the bladder can be pressed downwards against the investigating finger, and thus bi-manual palpation practised. As I did not have in my possession a set of Simon's dilators, I had to use instead steel sounds, which answered the purpose very well, but the highest number was far too small. I found, however, that after the use of the sounds, the small finger entered the bladder with ease, and then the fore finger, which had previously been well lubricated with vaseline. It was easy now to detect the existence of papillary excrescences in the trigonum; and if I had foreseen what I should encounter, I would have carried with me one of Thomas' wire curettes, or else a Sims' curette, with the cutting edge somewhat dulled. In that event, I would have scraped off these growths by means of one of these instruments. As some of the larger were pedunculated, I succeeded, however, in detaching them by the finger. Microscopic examination, undertaken by Dr. Hathaway, showed these growths to be simply papillary proliferations. After return to consciousness, the patient suffered a good deal of pain, but slept well at night, in consequence of a hypodermic injection of morphine. The next day, after passing water several times, at intervals of a few hours, she found herself suddenly unable to void the urine, at the same time having great pain and an urgent desire to urinate. The catheter was promptly introduced; the urine drawn off, and the bladder thoroughly washed out with hot water, slightly carbolized. From this time, for several weeks, the bladder was washed out with a weak solution of the following compound (1 part Churchill's iodine, 2 parts Calvert's carbolic acid, 4 parts glycerine), at first twice daily, and then once a day. Her improvement was progressive and uninterrupted.

I ceased to visit this patient the 3d of July, as she was then perfectly free from all disease of the bladder. She had gained a good color, and her whole appearance indicated excellent health. Her rest at night, too, was not disturbed by any demand to pass urine.

Perhaps I ought to apologize for entering into such minute details in regard to Simon's method, but I thought they might possibly not be familiar to some.

ART. IV.—**Cure of Hernia by Subcutaneous Injection, with a Description of Various New Surgical Instruments.** By JOSEPH H. WARREN, M. D., Boston, Mass., Author of "Hernia and Various New Surgical Instruments;" Delegate from American Medical Association to all Foreign Medical Societies, etc. (Read before the British Medical Association, at Cambridge, England, August, 1880.)

Mr. President and Fellows,—As many of you are aware, I have written considerably on this subject, and by means of the various medical journals, the so-called radical cure of rupture has been circulated through the medical profession, and caused no little interest. But I do not like the term "radical" as applied to this or any other operation, for it is not euphonious, and is distasteful to the true surgeon, sounding as it does of quackery. I am aware that some of the most honored men that have brightened the pages of surgical literature or taught in our Universities have applied the term radical to the operation for hernia, but notwithstanding this, I would take exceptions to the time-honored precedent, and in accordance with the present spirit of medical and surgical art, call this operation by its true name, trusting that we shall be quite as successful in curing and relieving our patients as we should under the irregular name of radical cure. In all my future papers and work upon hernia, I will join hands with the profession and erase the objectionable word, and will speak of treating and curing ruptures by this method as we do of any operation devised for the cure of any affection.

In presenting this paper, I wish to say that in giving my new instrument and method to the profession, I do not wish to detract any credit from the late Dr. George Heaton, of Boston, nor under-estimate his valuable work on rupture, or the great labor and pains of his late co-editor, the refined and scholarly Dr. Davenport. On the contrary, I look up to Dr. Heaton, not only as my former master and instructor in this operation, but as one from whom I gained all my inspiration

for my present and future efforts in developing and demonstrating this, as yet, as I feel, imperfect operation on hernia. To Dr. George Heaton will always belong the honor of my first injecting the hernial rings with fluid extract of oak bark (*quercus alba*) for the radical cure of rupture, if he was not the first to inject hypodermically.

I am, as will be seen, working over the field of operation for hernia, trying to perfect and improve any deficiencies which I find in the treatment by injections, and it will be my greatest desire to be candid and truthful in all that I do and present to my medical brethren; and may I not hope with their kind assistance, to accomplish much in this operation, which does not as yet seem to be fully understood by the profession, or appreciated as it properly should be?

The following is a short description of new syringe and instrument for injecting the hernial rings in the cure of hernia.

The instrument which I show you consists of a barrel, holding sixty minims. The barrel is of glass, accurately fitted in a cylinder of silver, which is fenestrated with two openings to present a view of the barrel and its contents. The barrel is graduated, each degree indicating ten minims. The piston works by a spring, very tightly, within this tube, so as to exclude all air possible. The lower end of this piston is slightly concaved. At the bottom of the interior of the glass barrel there is a ring one-eighth of an inch in thickness made of soft rubber, for an air chamber, with a hole in its centre for the exit of the fluid. On the lower exterior end of the barrel will be seen a convenient semi-circular handle, with the concave side roughened to give a firm hold for the finger and thumb of the operator. A valve is situated just below the bottom of the barrel and rubber chamber, and is opened and shut by pressure on the lever. We thus have perfect management, both of the amount of the fluid to be injected and of the time when it shall be injected. Below this valve is a diamond, or other hard stone, concaved to fit exactly the convex head of the needle which plays upon it.

The needles are flattish, oval in shape, and are twisted throughout their entire length. They are of three sizes. No. 1 is one and a quarter inch in length, size two and a half

American scale; No. 2 is one and three-eighths inch in length, size two and three-quarters American scale; No. 3 is one and a half inch in length, and size three. From their peculiar form and twist, they make an incision only about one-half the size of round needles, which measure the same on the scale. The twist of the needles also varies. No. 1 is twisted to revolve once in penetrating one-fourth of an inch; No. 2 once in penetrating one-half an inch; and No. 3 once in penetrating three-quarters of an inch.

I use No. 1 in operations on umbilical hernia and other herniæ where the tissues are thin. It is therefore small, and has a quick twist, because it is necessary that the needle, in penetrating, should make a full revolution, so as to distribute the fluid on the parts to be irritated by the injection. No. 2 is for use in operating on the majority of small and recent herniæ. No. 3 is for use on large and long-standing ruptures, where the needle must traverse tissue generally much thicker than in the other cases mentioned, and often surrounded by adipose deposit.

The needle has a round shank, playing through a collar, which is attached by a screw thread to the neck of the barrel. This needle does not bore in passing, but turns round in a spiral manner as it advances, and the same can be said of all of the other instruments to be hereafter described, except the aspirating needle, which is twisted in through the tissues by slight pressure and revolving it at the same time.

I have said that there was a rubber cushion at the bottom of the glass tube. This cushion remedies the defect common to hypodermic as well as all other syringes, for it forms an air chamber which arrests the passage out of any air that may be in the barrel, and there is always more or less, and this would be injected with the fluid. It also acts very effectually in stopping the further action of the piston after all the fluid has been injected.

The method of using the instrument is as follows: With the valve closed, the needle is inserted in the fluid to be used. The valve is now opened by slight pressure upon the lever. The pressure being continued, the piston can be retracted, and the barrel will be consequently filled with the fluid.

The valve is then allowed to close, and the instrument is charged for use.

Having selected the most suitable point over the ring to be injected, we now thrust the needle slowly and gently, but at the same time firmly, through the integuments. During this act, the needle revolves, because of its twisted form. As soon as it has passed through the integuments, pressure is made upon the spring, which opens the valve, and allows the fluid in the barrel to flow as slowly and in such quantities as the operator may, in any given case, think necessary. The quantity used can, of course, always be known by the engraved scale on the barrel.

The Position for Operation in the Radical Cure of Hernia.—I usually perform this operation on a table made of white wood, for the sake of lightness, about six feet long and one foot wide. It is supported by three pairs of legs, which at the foot are two feet four inches high, and at the head two feet high, while the central ones are nineteen inches high. These legs diverge from the middle line of the table to give the greatest possible stability.

There are four leaves attached to the top of the table, two on either side; that is, each leaf is about three feet long and six inches wide. The two leaves at the head of the table are spread open for the patient to lie upon, while the two at the foot are allowed to hang at the sides of the table. On these latter leaves is placed a foot-rest for the patient, so that his limbs may be in a proper position for a convenient operation. These leaves, as well as the legs, are hinged to fold up, and are properly braced to be held in position during the operation.

The table has in its centre, and about three feet from the lower end, an oval opening six inches in diameter, around which the surface has been bevelled to fit accurately the patient's sacrum and hips.

The table being first covered with sheets or blankets, or, if necessary, a rubber cloth, the patient is laid upon it with the head upon the lower end of the table. In this position the spine partakes of the curvature of the table top, the pelvis and hips being elevated. If desired, a small pillow can be

laid under the head so as not to elevate the shoulders unduly. The patient is now in position for the operation in umbilical, inguinal, and femoral hernia—a position clearly the most favorable for the entire relaxation of the spinal, abdominal, and limb muscles.

The herniæ may now be returned within the abdominal cavity, where they will remain on account of the position of the patient, and can be at once operated upon.

This table can also be used in the treatment of uterine diseases and for operations on the anus, by placing a staff at the foot or highest end of the inclined top on which to suspend a fountain syringe, bucket or other vessel. The patient will be found to lie on this table in the very best possible position for the treatment of such cases, on account of the concavity of the table from head to foot, and the circular orifice will allow all overflow to escape, thus keeping the patient clean and dry.

I now prefer and use the Goodwin invalid bedstead in my operations in place of this table, as I find it better adapted and much more convenient while operating, and the patient is not obliged to be moved afterwards till able to be up again, and the desired elevation can be obtained, as the foot and head can be lowered or raised to any height and firmly remain so as long as we wish, by the means of a canvas bottom that is pierced with a hole, so that the bed-pan can be used without any trouble for all the calls of nature.

*Operation for Inguinal Hernia.**—The patient is first placed upon this table, or, if the table be not at hand, upon a bed, in which case the hips should be elevated by a pillow, whilst the head and shoulders should be allowed to fall somewhat lower, in order to produce a slight curvature of the spine and a relaxation of the abdominal muscles.

If a bed is used, the legs of the patient should now be drawn up, but if the table is used, this same position is gained by the foot-rest below the surface of the table.

The patient being thus in a relaxed yet firm position, we seek the hernia to be operated upon, and, after reducing the protruded intestinal sac and omentum by taxis, we pass the

* For similar operation, see Heaton on Rupture.

left middle finger up the spermatic canal until we come to the inguinal ring, and by slightly raising the end of the middle finger, as above mentioned, the same is felt by the fore finger, which also helps us to indicate the exact point and guide to insert the point of the instrument. Having ascertained that the ring is well open and free from attachments or adhesions to the returned sac, we begin to insert the needle at the lower portion of the ring, where we feel its edges through the abdominal parietes. The needle should always enter this lower portion of the ring, as in passing obliquely upwards and backwards it is less likely to wound either column of the internal ring. Great care should be taken in inserting it through the integuments and superficial fascia, so as not to wound the external pillar, but to enter the canal at once. The needle then should never be passed in a perpendicular direction, as there is thus danger of wounding the spermatic cord, but it should receive the necessary obliquity as soon as we feel that it has passed through the integuments. We can diagnose the position of the needle when first entering, by passing the left fore finger or little finger up with the invaginated scrotum upon it. When we have passed the needle through the integuments, we begin to open the valve and slowly push the needle in the direction already indicated. As the needle is thus inserted, it revolves and injects the fluid in sufficient quantities to cover well the external and internal rings. The needle is now slowly withdrawn, still injecting fluid in its backward motion. As soon as the needle is withdrawn, pressure is made with the end of the fingers over the wound and rings for five or ten minutes, until the smarting and throbbing pain subsides.

Now a pad about three by four inches and three quarters in thickness is made by folding a linen napkin once or more. This pad should be immersed in cold water and applied, gentle pressure being constantly exerted until the bandage, which should be double and three or four inches wide, is passed round the body and firmly secured by pinning. This bandage should be kept from slipping upward by two perineal bands, beginning at the crest of the ileum and pinned near the symphysis pubis in front.

The patient is now placed in bed, with his legs side by side, and should remain upon his back in this position from twenty-four to forty-eight hours. He should not be allowed to rise in voiding urine, or attending to other calls of nature, but the bed-pan should be used for such natural calls. My injecting fluid is composed of—

Ry. Fluid extract quercus alba..... $\bar{5}$ iv
 (Reduced to one ounce.)
 Sulph. ether..... $\bar{5}$ ij
 Alcohol $\bar{5}$ ij
 Sulph. morphia.....gr. ij

M. Sig.: Inject 15 to 25 drops.

We cannot be too careful in the selection of our extract of white oak bark. A good fluid extract will be nearly as thick as glycerine, when distilled down from four ounces to one.

Operation for Femoral Herniæ.—Same position of the patient as above. Having ascertained by diagnosis whether the hernia be femoral or inguinal, that is, having found the relation the hernia bears to Poupart's ligament (femoral herniæ lying below this ligament and inguinal herniæ above), and having selected the position of the saphenous opening to which we are easily guided, if the femoral hernia has emerged from the femoral canal, the operation is performed in a manner similar to that of inguinal hernia.

This saphenous opening we can usually locate by pressure in the thigh below Poupart's ligament, and about three-quarters of an inch to the inner side of the femoral artery. Over it usually lies a lymphatic gland, which is much enlarged if a truss has been worn; and in most cases the sharp edges of the falciform process or fascia lata, which may be thickened and hypertrophied from friction. This is formed by friction of the truss and the hernia, and forms our land-mark, for its curve is peculiar, and not readily mistakeable in making our definition.

The hernia having now been reduced, and the fore finger pressed against the outer edge of the falciform process, the needle of the instrument is inserted into the canal just above the saphenous vein and on the inner side of the femoral vein, which is held to one side by the finger, care being taken not to forget the femoral vein, that often lies posterior to the

hernial membrane. The needle thus centers the femoral canal external to the hernial membrane.

The irritation applied to the crural ring should be slight, as femoral hernia will not require so much of an irritant as an inguinal one of nearly the same size. The pad and bandage is applied similarly to those in inguinal hernia.

Of all herniæ, femoral are the most difficult to cure by this operation, especially in females, as they require the utmost skill and care on the part of the operator, because of the extreme length of the ligaments, which make up the crural ring, and because of the immediate relation of the femoral veins and arteries; and because, in large and long standing herniæ, the sac is often ramified by branches of large veins and arteries, together with lymphatics.

Operation for Umbilical Hernia.—From the ease of diagnosis, these will not require any lengthy description. The patient is placed upon his back as in femoral hernia, except that the feet may be slightly elevated. The finest needle, which revolves once in going one-half of an inch, is selected and passed to the centre. As soon as it has penetrated the integuments, we deliver the injection with some force upon the edges of the ring, by throwing the valve wide open.

Care should be taken in this operation not to puncture the peritoneum. Where the integuments are very thin and the hernia small, as in children, the hernial rings should be seized with a pair of dressing forceps, and elevated while the needle is passing through them. In extreme and old herniæ of this kind, two or even three points may be selected for injecting the irritant. This is necessary in cases of extreme size, in order that the liquid may bathe the edges of this enlarged umbilical ring. The bandage and pressure is the same as in the other cases mentioned.

After Treatment.—From six to eight hours after the injection, an increase of temperature, slight increase of pulse, and a feverish condition, showing a slight constitutional disturbance will set in and continue usually from three to four days, when it will be found gradually to subside. The patient should have a light liquid diet; and, unless otherwise indicated, should have cold water constantly applied by means

of a compress, from beginning to end. Morphine or some other anodyne can be administered to secure quiet. The bowels should not be moved, if possible, until the sixth or seventh day, and then by some gentle cathartic. Fluid as drink can be had *ad libitum* in the way of cold water, but no stimulants of any kind except under the utmost urgency, and on no account is tobacco to be used.

This treatment should be continued for at least a week or ten days, the patient lying in bed and as much as possible upon his back. The first four days he should remain constantly upon his back, as any other position might injure the process of adhesion of the rings caused by the irritant.

This is an operation which, if it should not be successful, has put the patient to but little pain, inconvenience or danger; and should we not fully succeed, we have not left our patient worse than we found him, as there is always a partial, if not a full occlusion, of the rings, and so if we do not fully close them, we have somewhat benefitted the patient. This cannot be said of many other operations performed for the relief of hernia.

It now, perhaps, would not be out of place to consider the various kinds of hernia which would promise the most favorable results from this operation.

Congenital herniæ of all kinds, in children from five to twenty years of age, are very favorably and almost effectually cured by this operation. No child under four years of age should undergo this operation, except in extreme cases.

Herniæ caused by accidents, when of short duration, even when quite large, are very effectually and generally cured by this operation.

Herniæ that have been caused by over-exertion, such as convulsions, child-bearing and the like, and which have existed over twenty years, can also be generally cured, requiring, however, more than one injection usually. The longer their duration and extent, the more liable are we to be obliged to perform repeated injections, in order to fully close the ring.

Congenital herniæ of large size and long standing are difficult to successfully relieve and cure, unless we make sev-

eral injections, although I operated last summer on a double congenital hernia (inguinal), one ring being two inches in diameter and the other one and a half inch. The one was fully closed by the primary operation, and the larger opening was closed by two injections. At the time of operating, the patient told me his hernia had existed for eighteen years; but, after he was cured, he informed me that his mother said that he was born ruptured, he being at this time upwards of forty years old.

I speak of this to show what this operation is capable of doing. This patient was formerly not able to retain the hernia on one side, it being so large, and the rings being so thin, and the integuments so dilated, that it would bulge out over the support, which he was obliged to wear constantly. Yet, the bowels of this patient are, to-day, retained within the abdomen, and he is very comfortable, although, as a precautionary measure, he is to wear for a year or more, as may be necessary, a very delicate and soft French spring truss, of Tiemann's importation or manufacture. From such results as these I have astonished myself, perhaps, more than any one else, as previous to my experiments and trials of the operation, I could not believe that it was possible to produce such favorable results.

In performing this operation it is not desirable to use ether, as it is apt to excite vomiting, and I only resort to it with the very timid and sensitive. It will be found more necessary to etherize children and women than men, to overcome their fear rather than any pain they would experience in the operation. Chloral hydrate may be given a few hours before the operation with almost as good results as those obtained from ether, producing sleep and freedom from pain and fear.

Great care also should be taken not to allow the patient to stand upon his feet too soon, as from past experience, I am convinced that very few cases which have needed a second operation, after they have, in the opinion of the physician and the patient himself, completely healed, would have required a repetition of the injection, had they been more prudent and been content to remain quiet a little longer.

Do not be too anxious, then, to see the results of the operation, but let nature take her time in occluding the rings.

Moreover, when we allow the patient to stand upon his feet for the first time, we should support the injected parts with the tips of the fingers, and on no condition remove this support while he is standing. He should not be allowed to cough, bear down or make any undue exertions for two or three months at least.

After I had devised my instrument for hernia and applied it in practice, I soon ascertained that this spiral-shaped needle passed with such ease through the tissues, that it could be applied to a number of surgical instruments with marked advantage. I began to experiment upon a needle for aspirators; being of the same spiral form, they easily penetrate every kind of tissue, muscle, ligament, tendon, etc., and remain at any depth and position where we place them. As I have said in my work on hernia, they are very useful in tapping all deep-seated abscesses, effusions about the pericardium, knee-joint, etc. They are made from the smallest size of the aspirator in general use, revolving once in one-half an inch, to those of No. 10 revolving once in two inches, and can be used as a trocar for hydrocele, if desired. They can be adjusted upon an ordinary Davidson's syringe, or upon the common aspirating syringe.

Trocars, made of the ordinary sizes, but flat, oval and spirally-twisted point, revolving upon a staff, which may be withdrawn after the introduction of the point, will be found very useful in paracentesis thoracis; because, being flat, they pass through the intercostal space very easily, and resist expulsion by any muscular contraction. They will also be found useful in ascites, and in tapping ovarian dropsical cysts, since they run less danger of tearing the membrane of the cyst than do ordinary trocars, or of the overflow of the cystic fluid into the abdominal cavity.

The same kind of a point applied to an ordinary uterine sound, will be found very useful in treating uterine diseases; applied to a malleable shaft, it will be also useful in probing *fistula in ano*; attached to an ordinary probe, and tipped with a drop of unglazed porcelain, it will readily detect the presence

of lead in probing gun-shot wounds, being scratched and blackened by the foreign body; or for a probe in general use for the field or pocket case.

The same combination of the screw and wedge has been applied to sounds and catheters, and by its peculiar spiral motion, it avoids, to a very great extent, the friction met with in using the sound and dilator of Otis and others in common use, since but a small portion of the urethral canal is in contact with the instrument at any one time. It will be seen that it partakes of the spiral twist in common with my new aspirator and syringe for injecting hernia. This new idea in surgical instruments was suggested to me while treating an old and difficult stricture last spring. I found that I could introduce the ordinary dilator with much greater ease, and with far less pain, by giving it a twisting motion. I think you will find, if any of you have under treatment long and torturous strictures, that this dilator will glide through with great ease, and will fully accomplish its purpose, with much less pain than the sounds in general use.

These instruments can be obtained of the varied sizes which are in general use, American or French scale.

CASE I.—On January 12th, Mr. — applied to me with a very severe stricture of several years' standing. He was unable to pass a stream of water larger than a small knitting-needle. It was impossible to introduce the smallest sound through the stricture without the greatest pain, and it had been said by several physicians who had attempted it, that owing to the extent of the contracted and strictured canal, it would be impossible to pass again a catheter or sound. I passed this instrument which I now show you with such little pain to the patient, that he asked if I had really penetrated through the stricture. Upon learning that I had, he said he never had one introduced so easily and successfully before.

The vermicular catheter is, in shape, like the catheter in common use, except at its point. This point is about one and three-tenths centimetres long, of the same peculiar wedge shape, and revolves in precisely the same manner as the vermicular sound and dilator. On account of its shape and power of revolving, it is passed through and made to dilate the urethra with very little friction, and, of course, with far

less difficulty, and with little or no pain when compared with the usual catheters.

CASE II.—Mr. B——, age sixty-six, has had an enlarged prostate, and for many years has passed his water with great difficulty, and in a very small and irregular stream. The parts were so compressed by this enlarged gland, that it was impossible to introduce a common catheter or a soft rubber bougie, No. 9 French, or No. 6 American scale; yet, this vermicular catheter passed with perfect ease and without pain into the bladder.

It has to be used only once to show its superiority over every other catheter, in the ease and freedom from pain with which it penetrates the strictured parts during catheterization. These catheters are made for both male and female. They are introduced in the ordinary way, the staff being held firmly in the hand; but the withdrawal should be gradual, little force being used in order that the mucous membrane may not close around the vermicular point.

In the many diseases of the uterus requiring dilatation of the cervix and uterine canal, a dilator, made to revolve like the sounds above described, but larger and somewhat thicker through its centre, and fastened to an adjustable handle, will be found equally advantageous. These dilators should vary in size from 10 to 30, and can be made of white metal or hard rubber.

The same shaped dilators, but of larger size, varying from 20 to 60, can be used for dilatation of the stricture of the œsophagus and anus. The handles should be about sixteen inches long and two in number, one straight, the other of the proper curvature, for insertion into the œsophagus.

A cap made in this spiral form and adjusted over and upon the end of Sir Henry Thompson's or the Bigelow tube, used for the removal of *debris* after the operation of litholapaxy, will be found to allow a much larger tube to be passed through the neck of the bladder and urethra, and with far greater ease than would be possible with the ordinary instrument, even of a smaller size. After the tube has entered the bladder, the cap is opened off from the end by a concealed spring in the hinge, and, then, from its peculiar shape, can be used as a ladle to gather up the *debris* which is to be

drawn through the tube by the aspirator. I call this the Thompson or American tube, in honor of Sir Henry. This is made by Messrs. Weiss & Son, London.

Thus far the shape of the instruments has gone much beyond my expectations in their effectual results. It allows the instrument to be applied with great ease, very little pain to the patient, and very little injury to the parts. They are manufactured and for sale by Tiemann & Co., of New York.

I took the idea of the herniotomy knife from my friend, Mr. Bryant's work. It is a sheathed knife, the blade of which has been serrated and slightly modified in other respects by Messrs. Weiss & Son, so as to adapt it to divide Poupart's ligament by sawing instead of cutting, and by this means avoiding hæmorrhage to a very great extent.

For a fuller description of my operation on the cure of hernia by subcutaneous injection of the hernial rings, as well as for a fuller description of the various instruments which I have devised for many kinds of surgical operations, I would respectfully refer you to my work, now in press, and soon to be issued by Messrs. Sampson Low, Marston, Searle & Rivington, of Fleet street.

Clinical Reports.

A Case of Epithelioma of the Cervix Uteri Treated with Chian Turpentine. By J. R. WHEAT, M. D., Medical Superintendent of the Retreat for the Sick; Assistant Demonstrator of Anatomy Medical College of Virginia, Richmond, Va.

Mrs. M., age 39, the mother of seven children, was sent to the "Retreat" by her physician, from Caroline county, Va., with uterine disease. In June, 1879, she began to suffer with menorrhagia, which continued until December, when her pains grew more intense and neuralgic or lancinating in character, and hæmorrhages became frequent and excessive. She had received little or no treatment. From the history of the case, and the symptoms, as presented by the patient, I was led to suspect some malignant disease of the uterus, and, on examination, I found epithelioma of the cervix uteri, involving the posterior lip of the os uteri and upper portion

of the posterior wall of the vagina, covering a surface irregular in shape, about the size of a silver dollar. The ulcerated surface bled freely on the slightest touch, and she complained of agonizing pain in her back and abdomen, and the cancerous cachexia was plainly marked. The disease had advanced so far that I decided that any surgical interference would not be judicious, and palliative treatment, with the country air of her home, was the best that could be done for her. However, I saw Dr. F. D. Cunningham, of this city, with regard to her case, and he very kindly saw her with me on July 30th, and decided without hesitation that the case was one in which surgery could not lend any aid, as too much of the tissues were involved for all of the diseased structure to be removed without cutting into the peritoneum. The doctor advised a course of palliative treatment, and thought it advisable to send her home.

I had decided to do so when, the next day, Dr. Cunningham called to see me, and suggested the treatment with Chian turpentine, as recommended by Mr. John Clay, obstetric surgeon to the Queen's Hospital, and Professor of Midwifery at Queen's College, London, as reported in the *Lancet* of March 27th. I accordingly obtained an ounce of Chian turpentine, through Messrs. Meade & Baker, and proceeded at once to treat Mrs. M's case as recommended by Mr. Clay.

On Saturday evening, July 31st, I prescribed

R. Chian turpentine.....gr. lx

Flowers of sulphur.....gr. xl

To be made into 20 pills, to be taken every four hours, night and day. No change made in diet, and no other remedies administered or applied, except warm douche night and morning.

On the third day after taking the medicine, the patient reported herself greatly relieved from pain, was in brighter spirits, and could sleep without difficulty.

On the sixth day, she asked me to let her leave the hospital and go to her aunt's in the city. Before letting her go, I made an examination, and found the os uteri and ulcerated surface of the vagina covered with a tenacious, dirty-white secretion, and little or no tendency to bleed, and the cancerous infiltration in the upper walls of the vagina seemed rapidly disappearing.

On the ninth day, she came to see me and reported herself entirely free from pain, appetite good, sleeps well, spirits very bright, complexion much improved, and has gained in

flesh. She expresses herself as feeling as well as before she was taken sick, or "as ever in her life."

On the thirteenth day she called again, and I found her not so well—her menses having come on the day before; and though she was experiencing some pain, it was less than she had suffered for years.

On the seventeenth day, the patient reported her condition about the same. Her menses continue natural, and her appetite good; also, sleeps well.

The patient reported again on the twenty-first day, and I found her condition much improved. Her menses have ceased, and she expresses herself as having suffered less pain, and the "discharge" not more in quantity than was usual with her when in health.

The patient presented herself on the twenty-fourth day of treatment, and was examined in presence of Drs. H. D. Taliaferro and L. B. Edwards, of this city, and Dr. J. T. Humphreys, house physician, who pronounced her greatly benefited by the treatment. She is entirely free of pain, appetite good, sleeps well, and gaining in flesh. She feels encouraged, and is anxious to persevere with the remedy.

I find I have not been giving as much of the remedy as directed by Mr. Clay; so to-day I have increased the quantity to six grains every four hours, instead of three as heretofore.

The patient will be continued under treatment, and the results reported in the next issue of this journal. The object of this report is to call prominent attention to a remedy which has done good thus far in a case of epithelioma.

Correspondence.

Risks to be Considered before Operating for Paracentesis of the Pericardium.

Mr. Editor,—I have recently had a case under my care which illustrates the possible dangers of paracentesis of the pericardium, which may not prove uninteresting. A male, aged 35, was suffering with anasarca, and with a large amount of albumen in the urine. I found a few pale tube casts at each examination with the microscope. I diagnosed a large quantity of effusion in the left pleural cavity, and also water in the pericardial sac, as there was dullness on percussion over a large area over the region of the heart, and as the

heart sounds were *feeble* and masked, and the radial pulse was also *feeble*. There was no impulse over the heart against the ribs, and I had no reason, therefore, to suspect hypertrophy of the organ. I did not perform paracentesis as I wished to do (only because the instruments had been sent away to be repaired), though feeling pretty sure that an operation for the removal of the fluid in the pericardium and pleural cavity would prolong his life perhaps for weeks or months. The man died July 13, 1850.

At the *autopsy*, I found a quart or more of fluid in the left thoracic cavity, and a considerable amount also in the pericardial sac. There was, however, very great hypertrophy, with dilatation also of the right ventricle—almost amounting to the *cor bovinum*.

Had I operated, I still think I would have avoided wounding the heart, by my expedient of using the hypodermic syringe as a suction instrument—a vacuum being produced after the point of the needle has entered the skin, for the fluid springing up in the body of the instrument as soon as the sac was penetrated, would have revealed the correctness of the diagnosis. However, I have learned a lesson of caution from this case.

Before I made the autopsy, for experiment sake, I inserted a needle through the skin, down upon the heart, $2\frac{1}{2}$ inches to the left of the median line of the sternum, between the fourth and fifth ribs, and I found that this was precisely the right spot.

I am at a loss to perceive how I could have detected the co-existence of hypertrophy—all the signs I know of being absent.

In a recent autopsy of a case, dead of fever (malarial?) with high fever and no congestive chill, I found two quarts of blood in the thoracic cavity; the lungs intensely congested and engorged; no lesions. I think the blood was *thinned* by fever, causing simple diapedesis—as in yellow fever—only it passed into the thoracic cavity, and not into the stomach.

Very respectfully,

F. PEYRE PORCHER, M. D.

Charleston, S. C., July 17th, 1880.

Original Translations.

From the German and French. By WILLIAM C. DABNEY,
M. D., Charlottesville, Va.

The Value of the Antiseptic Method in Laparotomy.—By Dr. Bruntzel, of Breslau, *Rundschau*, June, 1880. In a recent number of the *Medical Monthly*, there was a translation of a discussion before the Société de Chirurgie on the results of operations on the abdominal viscera since the antiseptic mode of treatment had been employed. The present paper, while it has reference chiefly to ovariectomy, is interesting also with respect to antiseptic methods in abdominal operations generally.

Dr. Bruntzel commences his paper by saying that between the years 1867 and 1873, in England and North America the percentage of recoveries after ovariectomy was 75 per cent., while in Germany it was only 50 per cent. At present he claims that the death-rate in Germany is less than in either England or the United States, and this result, he thinks, is due to the careful manner in which the antiseptic treatment is carried out. In Breslau, the operations are performed in a spray of a three per cent. solution of carbolic acid. In the last nineteen operations the pedicle has been returned into the abdomen, and Dr. Bruntzel thinks it is only in cases where the pedicle is so treated that the best results can be obtained. The pedicle, along with the ligatures, become encapsulated, and give no further trouble. On the other hand, if the pedicle be left in the opening of the abdominal walls, the cicatrix is made weaker, and rupture is more likely to occur. One case is mentioned where the operation was performed for a dermoid cyst, when there was, at the same time, a fresh, fibro-purulent peritonitis. There was no febrile reaction from the operation, and the edges of the wound had adhered by the sixth day. On the following day, however, the wound opened again, and several coils of intestine protruded. The wound and intestines were thoroughly cleansed, and the latter returned into the abdomen; recovery took place without a bad symptom.

The custom in Breslau is to make a large external open-

ing. After the operation, the wounded parts are not only thoroughly bathed with carbolic acid, but a large quantity of a warm 2 per cent. solution of carbolic acid is injected into the peritoneal cavity for the purpose of "disinfecting." When this is done, subsequent drainage is unnecessary. Small amounts of blood are rapidly absorbed, and are of no consequence, provided no septic matter is present. In one case, when, in consequence of numberless adhesions, there was free bleeding, the wound was rapidly closed and a bandage and compress applied. The bleeding was speedily checked, and the patient, who was four months pregnant, made a good recovery and went to her full term.

In pregnant women, the operation should be performed as early as possible. When performed at an early stage of pregnancy, abortion is rarely produced. At a later period, the operation is attended with more danger to both mother and child in consequence of the large size of the vessels in the broad ligaments.

If the cysts be large, or there is considerable ascites, it is well to puncture one or two days prior to the operation. If this be done, there is more room for the operation, and less danger of trouble from the sudden withdrawal of pressure in the abdominal cavity.

The material used for ligations is silk boiled in carbolized wax for the stump, and, for all other purposes, cat-gut.

The after-treatment is exceedingly simple. For vomiting, ice is given by the mouth, opium by suppository, and morphia by hypodermic injection. The stomach is spared as far as possible.

The dressings are not generally removed till the edges of the wound have united—generally on the seventh or eighth day.

Bronchitis and pneumonia were observed with comparative frequency after the operations. This was supposed to be due to the cooling of the body during the operation. If menstruation occurred a day or two after the operation, there was usually a considerable elevation of temperature.

Dr. Bruntzel thinks that laparotomy for the removal of healthy ovaries is very rarely justifiable—a view which is also held by Spiegelberg. He considers extirpation of the uterus in the *highest degree* dangerous, and stated that even when the patient recovers from the operation the results are often very unsatisfactory.

Laparotomy has been performed once in Breslau for the

removal of a kidney. A fistula was present in this case which communicated with the pelvis of the kidney. The kidney itself subsequently became converted into a sac which adhered to the anterior abdominal wall. Astringent injections were tried with only partial success, and subsequently extirpation was practised from the back by the extra-peritoneal method.

Up to the year 1876, Spiegelberg had a mortality of 50 per cent. after ovariectomy. Since that time, his results have been much more satisfactory. In a series of thirty-five cases of ovariectomy, recovery took place in 86 per cent.; and of twenty-five cases of laparotomy since that time, all were successful.

Spontaneous Cure of Pulmonary Consumption.—An exceedingly interesting paper on this subject was read at the meeting of the “K. K. Gesellschaft der Aerzte” on the 28th of May last by Dr. Heitler, of Vienna. We take the following abstract from the *Allg. Wiener Med. Zeitung* of June 1st, 1880:

After a short notice of the pathological anatomy of consumption, and after reference to Laennec’s view as to the possibility of a spontaneous cure of the disease, Dr. Heitler proceeds to report the result of his own investigations, which were made during the past ten years at the Institute for Pathological Anatomy in Vienna.

He includes among the cases of spontaneous cure all cases where the autopsy showed “obsolete pulmonary tuberculosis,” those in which there were extensive surfaces, which were hardened and which contained caseous or chalky masses, and those in which old cavities were found—death in every case having been caused by some other disease.

His paper is based on 16,562 autopsies. In 780 of these cases, “obsolete tubercular patches” were found in the lungs. Of these subjects, 503 were men and 277 women. Of these 780, there died from cancer, 107; tubercular affections other than that of the lungs, 101; chronic Bright’s disease, 83; diseases of the brain and spinal marrow, 62; emphysema of the lungs, 58; affections of the heart and blood-vessels, 55; granular liver, 45; croupous pneumonia, 46; injuries and suicide, 20; peritonitis from different causes, 31; caries and necrosis of bones, 23; typhus, 20; pleuritic exudation, 19; diseases of the digestive organs, 17; amyloid degeneration of the abdominal viscera, 10; puerperal affections, 6; pyæmia, 6, etc.

The following table shows the ages of the different persons :

Between	10 and	20.....	12 individuals.
"	20 "	30.....	105 "
"	30 "	40.....	131 "
"	40 "	50.....	156 "
"	50 "	60.....	157 "
"	60 "	70.....	142 "
"	70 "	75.....	36 "
"	75 "	80.....	11 "
"	80 "	85.....	6 "
"	85 "	90.....	2 "
"	100 "	105.....	2 "

In 651 cases of the 780, the apices of both lungs showed evidences of previous disease. Frequently a considerable part of the upper lobe was involved. In some cases the middle and lower lobes were involved. In four cases there had been disseminated tuberculosis from which recovery had apparently taken place. In these cases, there were a number of little masses, about as large as a hazel nut, scattered through the lungs, each of which in the centre consisted of a chalky substance. In these cases were found tubercular ulcers of the larynx which had healed; in one case, a cicatrized ulcer in the ascending colon; and in seven, tubercular ulcers of the ilium, which had healed.

It is evident, from these investigations, that a considerable number of persons suffering with tuberculosis recover, and Dr. Heitler remarks furthermore, that some of these persons were subjected to the most unfavorable influences.

Bleeding in Pneumonia.—A letter was recently received by the editor of *Le Practicien* from Dr. Biéchy, of Vesoul, with this heading. The letter is published in the number of the journal for the 7th of June last. Dr. Biéchy asks if there are any statistics showing the death-rate from pneumonia before and since bleeding was so generally abandoned? He states that, according to his observation, there has been a very sensible increase in the mortality of pneumonia since bleeding has gone out of fashion so completely.

The editor of *Le Practicien* says, that so far as he knows, there are no statistics bearing on this point; but he says there are very few physicians in Paris who would dare to bleed in pneumonia. M. Peter has withdrawn this treatment from the oblivion into which it had fallen in thoracic affections, and the editor expresses himself in favor of general

bleeding, especially in rural districts. He promises also to have the subject considered in his journal shortly by competent persons.

Mixture for Surgical Anæsthesia.—*Le Practicien* of July 5th refers to a mixture which was recommended not long since by Wachsmuth to prevent the danger incident to the administration of chloroform in surgical cases. He thinks its especial use is to prevent the respiratory paralysis which is occasionally observed when chloroform is given alone. The mixture consists of chloroform and rectified oil of turpentine in the proportion of five parts to one. Frank has tried this mixture in ten cases, and has found it to answer well. Anæsthesia was rapidly produced, and no unpleasant symptom followed its administration.

The editor of *Le Practicien*, with a good deal of national pride, says he will “adopt this German mixture when a sufficient number of cases have been reported in France to show that the views advanced by Wachsmuth are correct.”

[Respiratory paralysis does not seem to be a common cause of death during the administration of chloroform in this country.—W. C. D.]

Inversion of the Uterus.—A number of cases of this nature have recently been reported to the Société de Chirurgie, and M. Chavernac, on the 23d of June last, after reporting a case on which he had operated, read a paper on the subject, in which he arrived at the following conclusions:

1. Inversion of the uterus may be complete.
2. It may come on in consequence of the dilatation of the organ, or be congenital.
3. Violence or bad management during labor is the most frequent and the most efficient cause of the affection.
4. Complete uterine inversion may cause death rapidly immediately after its production, but it is not necessarily incompatible with life.
5. Its diagnosis is easy, and it is difficult to understand how errors have been committed by many distinguished surgeons.

[As a matter of fact, however, such errors, as is well known, are by no means uncommon; and an inverted uterus has quite frequently been removed under the impression that it was a polypus.—W. C. D.]

6. The prognosis is always bad.
7. Reduction should always be attempted.
8. Surgical treatment is only justifiable after all other means have been exhausted, and if life is seriously threatened.

9. The operation by the bistoury has given place to that by the ligature.

10. A badly-applied ligature may occasion serious symptoms.

11. The elastic ligature is preferable; a much larger percentage of successes has followed its use than when other modes of treatment have been employed.

12. The loss of the uterus is perfectly compatible with life.

M. Perrier has been appointed to make a report on M. Chavernae's paper, which will be duly noticed when it appears.

Analyses, Selections, etc.

Prepared by HUGH M. TAYLOR, M. D., Demonstrator of Anatomy, etc., Medical College of Virginia, Richmond.

Pilocarpin for Intermittent Fever.—Dr. Gaspar Griswold, in the August No., 1880, of the *New York Medical Journal*, gives a favorable report on this subject. Among other points established by clinical observation, he says, are (1) that intermittent fever may become pernicious. (2) Tendency to relapse is less after attacks quickly broken up. Indeed, after the system "has been well saturated with malaria," as the phrase is, he may have a chill at any time, without additional exposure in a malarial district, merely as the result of over-work, anxiety or some other depressing influence. (3) An ordinary intermittent fever may prove remotely serious, if it continue long, or if it recur frequently, by inducing constitutional deterioration. Well marked malarial eachexia, it has been stated, is often observed in patients who have never experienced any fever, but who have lived in malarial districts. But these statements are open to question, since there seems to be remarkable tolerance of high temperature in intermittent fever—patients reporting themselves comfortable in whom the thermometer stands at 104°F. (4) To prevent a single paroxysm is to diminish the tendency to the occurrence of successive ones. In a large proportion of cases, such prevention of a single paroxysm will bring about a cure, or will prove a most powerful adjunct to constitutional treatment.

The efficacy of the salts of quinia is beyond question; but in many cases they do not act promptly enough. The essentials of a chill are a small, hard pulse, peripheral anæmia,

and convulsive muscular contractions. Pilocarpin relaxes arterial tension, causes a determination of blood to the surface within two or three minutes, when hypodermically used, and by the diaphoresis induced by it, brings about muscular relaxation and relief of the chill—just as amyl nitrite, dilating the cerebral vessels, prevents the epileptic seizure.

Six cases of malarial intermittent fever were first selected as a clinical test.* Each patient was carefully watched at the time when his paroxysm was due, and two or three minutes after the chill had fairly begun, one-fifth of a grain of muriate of pilocarpin was administered hypodermically. The temperature was then taken every thirty minutes for the next four or five hours, with the following results: In five cases, the chill stopped within two or three minutes after the pilocarpin was administered, and the paroxysm aborted, terminating in the sweat caused by the medicine—no hot stage occurring. In the remaining case, the patient was a very large man, and the dose administered did not produce marked diaphoresis; the chill was not interrupted, although its severity was diminished, and the pains in the back and loins disappeared. A hot stage occurred, but was shorter and less intense than that of the preceding paroxysm. It was proposed, in case another paroxysm occurred, to give a larger dose of pilocarpin, but the patient recovered without having another chill. In one case, quinia was also given; in the other five, pilocarpin was the only remedy. (2) In all the cases, recovery followed the administration of a single dose of pilocarpin; in no instance did another chill occur.

In a seventh case, five grains of quinine three times a day were prescribed. A chill, threatening to develop, was anticipated and prevented with pilocarpin. Convalescence was established without the occurrence of another chill. In all but one of the preceding cases, the medicine was administered *during the chill*.

Dr. Griswold has since studied *seventeen* cases in which pilocarpin was given *before the chill* to prevent its occurrence. In five of these, the remedy was used *hypodermically*. Diaphoresis resulted in from two to five minutes, and in every case the chill was prevented. In one of these cases, a second dose was required two days afterwards, and was again successful. Quinine was given in three instances in three to five-grain doses thrice daily.

In the twelve remaining cases, muriate of pilocarpin was

*See *Med. Record*, Aug. 16, 1879.

given *by the mouth*. In two instances, it failed to act—no diaphoresis being produced; the impending paroxysms were not prevented, but went through their usual course. In ten cases, more or less diaphoresis resulted in from ten to twenty minutes, and in all these, the paroxysms were averted. In three of these twelve cases, including the two in which no diaphoresis was produced, it was found necessary to use the pilocarpin again. About half of the twelve patients took quinine.

Administered hypodermically, the drug acts more surely, more rapidly, more evenly; the dose required varies between gr. $\frac{1}{5}$ and gr. $\frac{1}{6}$, according as the patient is large or below medium size. The following solution may be used:

Ry. Pilocarpinæ muriat.....gr. j
Aque distil..... $\overline{5}$ j

M. Sig. η x=gr. $\frac{1}{6}$.

Like similar solutions of other alkaloids, this one begins to lose strength, and is no longer reliable, after standing two or three weeks in a warm room. One-grain powders of the drug may be kept for an indefinite time, put up by the druggist in a manner to prevent deliquescence; the above-mentioned solution can then be made fresh as occasion may require.

If the patient objects to hypodermic medication, or if circumstances render this method of administration inconvenient, the remedy may be given by the mouth, and yet act efficiently. In this case, the dose will vary between gr. $\frac{1}{4}$ and gr. $\frac{1}{5}$. It is best given in powder, as follows:

Ry. Pilocarpinæ muriat.....gr. j.
Sacch. lactis.....gr. xxv.

M. Div. in chart No. V.

These powders may be given to the patient, with directions when to take them.

To prevent the occurrence of a chill, pilocarpin should be given hypodermically about fifteen minutes before the time when it would commence; if given by the mouth, an interval of half an hour is desirable, on account of the slower action of the drug when administered in this way. In cases where distinct prodromata, with which the patient is familiar, enable him to predict a chill, these will indicate when the medicine should be taken. In cases where there are no prodromata, it will be necessary to approximate, judging from the hours at which preceding chills have occurred. In those instances in which paroxysms come on at odd times, without any regularity, the patients may be advised to carry

powders about with them, taking one whenever an attack seems impending. It is in this last class of cases that the administration by the mouth is especially convenient.

It is well to assist the action of the pilocarpin with warm coverings and a warm drink; unpleasant salivation is least apt to occur in those cases in which diaphoresis is prompt and easy. Should the sweating cause the patient to feel cold and fatigued, a stimulant may be administered. In one case in which profuse diaphoresis continued longer than was desirable, it was checked promptly and without unpleasant symptoms with atropiæ sulphat. gr. $\frac{1}{96}$, administered hypodermically.

The advantages of this addition to the therapeutics of intermittent fever are sufficiently obvious. If the chill has just begun, the administration of pilocarpin will, in most cases, cause the paroxysm to abort; there will be no hot stage, and the patient will escape the exhaustion incident thereto. If the chill has been in progress for fifteen or twenty minutes before the pilocarpin is given, it will be cut short, and many of the patient's disagreeable sensations dispelled; but some fever will generally follow; this, however, will not range so high nor last so long as it would have done without treatment. In either case, the tendency to the occurrence of another paroxysm will be much less than if the first had been allowed to run its course without interruption. Quinine may now be given, but need not be pushed to the induction of absolute cinchonism; for, if another chill should threaten to occur, it could with certainty be prevented with pilocarpin. In this way the patient escapes the unpleasant effects of large doses of quinine—the fever being none the less effectually cut short at once; paroxysms not being permitted to occur, exhaustion is avoided, and convalescence is easy and rapid. In cases where quinine, through idiosyncrasy, is contraindicated, it may be left out of the treatment altogether, and entire reliance be placed upon pilocarpin. A large majority of cases of intermittent fever terminate without further treatment after the thorough abortion of a single paroxysm with pilocarpin; very few cases indeed, not 5 per cent., will continue long enough to require a third use of the remedy. One great advantage is, that pilocarpin need not be used blindly; it is required only when a paroxysm is felt to be on the point of developing.

The power of pilocarpin to cure intermittent fever entirely, by simply anticipating and preventing the occurrence of one or two paroxysms, is greater and more striking than

will easily be believed by those unaccustomed to its use. I have histories of four cases which had already resisted quinine and other approved anti-malarial remedies for periods varying from two to four weeks, but which terminated after the decisive control of a single paroxysm with pilocarpin. The most recent of these recoveries took place three months ago; yet a relapse has not occurred in a single instance.

Vague and ill-defined malarial manifestations, headaches, neuralgiæ, etc., are very successfully treated by the administration of pilocarpin a few minutes before the time for their occurrence; the effect will be most satisfactory when the disturbance in question is attended with some rise of temperature, and is distinctly periodic.

No good results seem to follow the administration of pilocarpin during the hot stage; its efficacy appears to be limited to its power to prevent or break up that primary disturbance of the circulation which ushers in a paroxysm. It acts quite as well, however, in cases where the cold stage is not marked, if it is given early enough to produce diaphoresis before the fever is well declared.

After having witnessed its administration in nearly a hundred cases, the author feels justified in asserting that, in the doses required in intermittent fever, the action of pilocarpin is unattended with danger or discomfort. This assurance is certainly not superfluous, in view of the fact that many good authorities hold that its use in uræmic comas and convulsions has been followed by serious cardiac depression and pulmonary œdema.

Sulphide of Calcium in the Treatment of Suppurating Buboës.

Dr. F. N. Otis, of New York, in the May issue, 1880, of the *New York Medical Journal*, endorses the views of Dr. Sydney Ringer, published in the *Lancet* of February 21, 1874, regarding the use of sulphide of calcium in suppurating buboës. Dr. Ringer claimed that, when the product of suppuration in scrofulous sores was thin and ichorous, the administration of small doses of the sulphide of potassium or of calcium promptly changed the purulent fluid to one of a more healthy character, and that the healing of the sore was promoted. He also claimed that the formation of boils and abscesses was prevented by a timely administration of small doses of the sulphides, and that, when suppuration had already occurred in such cases, the suppurative process was quickly arrested. A practical test has convinced Dr. Otis of the correctness of Dr. Ringer's views. In eighteen cases of

inflammatory buboes, presenting the rational evidences of chancreoid origin, and treated systematically by the use of small doses of sulphide of calcium, resolution occurred in fifteen; in only three cases was incision necessary. If we bear in mind that chancreoid buboes always eventuate in chancreoid abscesses, we must conclude that this agent is worth trying. The manner of its use in Dr. Otis' cases was practically the same as advised by Dr. Ringer, viz: $\frac{1}{12}$ th grain of the sulphide of calcium every two hours, or $\frac{1}{20}$ th grain every hour during the day and up to the time of retiring. Dr. Otis has found it, in small doses, especially useful in arresting the progress of furuncular swellings and abscesses, and in preventing their occurrence when threatening. On the other hand, he has tested it in gonorrhœa, gleet, leucorrhœa, etc., without being able to discover that it influenced or modified the suppurative process in such cases in the least.

Tertiary Syphilitic Ulcers.—At a recent clinical lecture, Prof. F. N. Otis, of New York, introduced a patient affected with ulcers, which are characteristic of tertiary syphilis. He thinks, however, it is a mistake to call them syphilitic. "They should rather be looked upon as the sequela, as they hold the same relation to syphilis as dropsy does to scarlet fever. After every feature of the disease which can be strictly called syphilis has passed away, these deep ulcers make their appearance, and are one among various sequelæ—all caused, however, by one and the same condition of things, namely, an aggregation of material which is composed of a serous fluid with cells. All the lesions of tertiary syphilis are composed of this gummous material. All that can be found that is foreign to the normal condition is this accumulation of gummy material, which is made up of cells, nucleated cells, not to be distinguished in any way from the normal white blood cells. This material has been confined to these places; has accumulated and been confined to the skin in the particular locality in which it happens to be, by some cause which is not well known. This we do know, however, that there is nothing in it which is in any way contagious, and that it does not differ from ordinary lymphatic fluid. This is really all we know about it, but we have reason to suppose that there must be a contraction of the lymphatic vessels in the vicinity of these accumulations. The office of the lymphatic vessels is to carry back to the general circulation the excess of material which has been thrown out for the purpose of building

and repairing the tissues. It is necessary to have some mechanical cause for this accumulation, and we have reason to suppose that this mechanical cause is dependent upon trouble which is laid down in the earlier stage of the disease, because it is associated with syphilis alone. It is the sequela of syphilis. In syphilis, the very first thing that is noticed is the accumulation of cells—a collection of lymphatic material. We have the enlargement of the glands of the groin occurring first—a simple accumulation of cells—and we have the lymphatic system at large very soon involved, and it is involved throughout the whole active stage of the disease. It lasts from one to two or three years. Exactly how this damage occurs that subsequently interferes with the lymphatic system, we are not able to state. The probabilities are that some such condition results as we find in the urethra after a gonorrhœa; an inflammation of a low grade, but sufficient to set in operation causes which finally result in the deposit of a fibrous material which afterwards contracts and forms a cicatricial stricture, in time producing a stenosis of the lymphatic vessels. Just as twenty or thirty years after gonorrhœa we often find stricture of the urethra showing itself, in a like manner, a like condition may be found in the lymphatic vessels of syphilitic patients; and Dr. Otis thinks in this way only can this pathological condition be explained.

The treatment adopted in such cases bear out his theory. The therapeutical agents found to do good in this condition are iodide of potassium and mercury—more especially the latter. He relies upon mercury as the agent above all others—the most powerful for producing fatty degeneration; and it is exactly what is wanted—not only of the material, which, by its mechanical presence, has produced this condition of things, but it must go further and remove the cicatricial tissue, and by so doing effects permanent good. There is reason to suppose that these cells get into the tissues only to a very limited extent about the sores, but they accumulate in the line of the lymphatics, and then find their way up into the lymphatic gland; the proliferation goes on slowly, stuffing the gland full of cells, until finally, having the power of motion, they go from the glands in the groin to the receptaculum chyli. Now, for the first time, it has an opportunity to become constitutional. Up to this time there has been nothing but the local sore to make the man think there is anything the matter with him. But some day, on looking into the glass, he finds his face covered with red spots. These cells have then passed into the receptaculum chyli, into the

general circulation with the lymph and chyli, and, then, as the blood goes to all parts of the body, to the capillaries of the skin, and so on, some of these little proliferating points, or infecting cells, are left behind. No matter whether it is vesicular or pustular, papular, scaly or an ulcer, we find that in every case the cause of the disturbance is the cell material which is packed in these points to such an extent, that the processes of nutrition are interfered with, and when we want to effect a cure, we go to work with mercury and iodide of potash, and get rid of them by producing degeneration.

Chian Turpentine in Cancer.—This remedy comes to us endorsed by no less a man than Prof. John Clay, of Birmingham, England. After more than a year's trial, he gives the world the benefit of his experience and discovery, and feels no hesitation in predicting in its extensive use a great boon to suffering humanity. In Europe, its curative reputation has spread like wild-fire. Many are using it, and if half the good claimed for it be accomplished, its introduction will be a great advance in the therapeutical treatment of cancer.

In the *London Lancet*, of March 27th, 1880, Dr. Clay publishes a record of four cases of cancer of the uterus, treated by Chian turpentine, and refers to other cases treated by the same agent. One of the patients, twenty-five years old, had scirrhus of the body and cervix uteri. Hæmorrhage was profuse and dangerous; pain agonizing and cachexia well marked. The cavity of the uterus was so eaten out that three fingers could easily be passed into it. The other cases were much of the same character; two much more advanced with enormous cancerous tumors. The remedy is exhibited in the form of pill or solution. If given in pill, he advises a combination of turpentine and flowers of sulphur—six grains of the former to four of the latter—to be made into two pills, which are to be taken every four hours. If a solution is desired, one ounce of the turpentine should be dissolved in two ounces of pure sulphuric ether; solution of tragacantha, four ounces, syrup one ounce, flowers of sulphur forty grains, and sufficient water to make sixteen ounces. Of this, one ounce should be given three times a day. The dose of the turpentine may with safety be increased up to twenty-five grains. The remedy must be continued for a long time; but Dr. Clay thinks it is best to give the patients a few days of rest every three or four weeks. To thoroughly test its efficacy, he tried it alone without any local treatment. The relief from pain is marvellous. The discharge, while at first

increased, gradually becomes thin and less, and finally is suspended. Many agents were combined with the turpentine, and other varieties of turpentine were tried, but in every instance it was found that the Chian turpentine alone exerted less deleterious influence upon the digestive organs, and could be administered for a much longer time alone. It appears to act upon the periphery of the growth with great vigor, causing speedy disappearance of infiltration and arrest of further development of the tumor. Pain and hæmorrhage is promptly arrested, glandular involvement is prevented, and the peculiar cancerous cachexia disappears. Cicatrization is rapid, firm and healthy.

It is claimed, that the demand for the agent is so great that the market is flooded with a bogus material, and this is held to account for its failure in some reported cases.

Painless Cure of Internal Hæmorrhoids.—Dr. Reuben A. Vance, of Cincinnati, contributes yet another new surgical treatment of the common trouble. He recognizes those varieties which can be distinguished by the predominating characteristics of their vascular supply into capillary, arterial and venous. In the capillary, there may be simply hyperæmia and thickening of the mucous membrane. It is this variety of the affection which yields so readily to the application of nitric acid. In the arterial hæmorrhoid, there are one or more tumors with hypertrophy of the sub-mucous cellular tissue, and this form yields readily to the treatment advised by Dr. Vance. The venous variety is merely a later stage of the arterial when the arterial trunks are no longer so prominent, but when the hypertrophied sub-mucous cellular tissue still remains. These tumors are the most common variety encountered by the practitioner. In order to understand the painless character of the treatment, the practitioner should patiently investigate the sensibility of numerous cases of internal hæmorrhoidal tumors. Inject as much warm water as the patient can stand; then as soon as the enema is voided, and the lower part of the rectum everted, exposing the hæmorrhoidal tumors, study the sensibility of the rectum about the tumors, the base of the tumors, and finally the summit of the tumors. As a general rule, when the tumors are uninflamed, the most sensitive part is a narrow band just at the base of the growth, where the lining membrane of the rectum is reflected on the hæmorrhoid. This band may not be the tenth part of an inch in width. The rectal walls just beyond this band are slightly more sensitive than the general

surface of the rectum in the neighborhood. Tracing the sensibility of the tumor itself, from the band encircling it at its function with the rectum, to its summit, it will be found that there is a rapid loss of all perception of painful impressions as you pass from base to summit, until finally, at the top of the tumor, a needle can be run through its apex without exciting but little, if any, pain. This anæsthetic region at the top of the tumor varies in different cases; as the outlet of the rectum is nearer, and more or less integument enters into the formation of the tumor, it grows smaller and smaller; on the contrary, the deeper they are situated, the larger it becomes. If a seton be passed through a swelling due to a collection of inflammatory products, the nutritive processes are so modified that disassimilation and absorption are increased. In January, 1878, the writer was consulted by a gentleman who was suffering with four large internal hæmorrhoidal tumors. In the largest of these growths there was complete anæsthesia at the summit. Intending to strangulate it, Dr. Vance passed a needle with a double thread through the top. Just at this point of the operation, the patient informed him that he could not possibly have anything done which would keep him away from his business. Under the circumstances, the ligature was not tied tight, but left transfixing the tumor. Five weeks afterwards, when seen, a little parchment-like thickening alone marked the site of the tumor. The gentleman declared he had no more than the usual amount of discomfort with his rectum; that he was not conscious of anything unusual taking place there; yet, the tumor had disappeared. Since his experience with the above mentioned case, the Doctor has had numerous opportunities of testing this method, and thinks it worthy of trial, and is led to believe that this is the method employed by certain irregular practitioners, who cure without caustic, knife, pain or detention from business. The setons slough out. The method is only applicable to internal hæmorrhoids, which are not inflamed.—*Med. and Surg. Reporter*, May, 1880.

Saw Palmetto (*Sabal Serratula*)—Medical Uses.—In all cases where a highly nutritive agent is needed, the use of saw palmetto is indicated. By its peculiar soothing power on the mucous membrane, it induces sleep, relieves the most troublesome coughs, promotes expectoration, improves digestion and increases fat, flesh and strength. Its sedative and diuretic properties are remarkable. It has been used with benefit in cardiac asthma, phthisis (especially laryngeal phthisis),

chronic bronchitis, and dilatation of the bronchial tubes. Its action in catarrhal affections is rapid and permanent. A cold in the head may be abated by two or three doses. Mixed in boiling water and used by inhalation, it has been found very beneficial in chronic ozæna. Several years ago, while on a hunting trip in the wilds of Florida, the writer's attention was drawn to the great fattening properties of the berries, and the peculiar quality of the fat of the animals that feed on them. During the summer months in these parts, the supply of food is scanty for such animals as bears, raccoons, opossums and hogs, and they consequently become very thin. As soon, however, as the palmetto berries begin to ripen, they improve rapidly, and, in a few weeks, have acquired an enormous quantity of fat, and they become unwieldy, and easy preys to the hunters. This fat, like that of mast-eating animals, consists principally of olein, and will not make lard. The berries, when dropped into water, are seized and eaten with avidity by the fishes, and even the natives frequently acquire a taste for the berries and eat them freely.—Dr. I. B. Read, in *Amer. Jour. Pharmacy*.

Cystic Kidneys with Renal Asthma.—In March, 1880, Dr. E. T. Bruen exhibited to the Pathological Society of Philadelphia the kidneys of a man, æt. 65, which had undergone cystic degeneration. Of the left kidney, hardly a vestige of renal substance remained, and the right was nearly as extensively disorganized. In the sacculated spaces were found some ten or twelve stones, in size ranging from that of a cherry-stone to that of a large walnut. His chief object, however, in presenting the specimens was to invite attention to the peculiar symptoms which preceded death. He was found one morning with all of the symptoms of asthma—pale face, anxious expression, cold, clammy skin, superficial veins distended by blood, violent respiratory efforts, and much suffering from want of breath. To his surprise, on auscultating the chest, the air entered and left it without bronchial or laryngeal obstruction. The heart was acting with sufficient power to carry on circulation. There were no râles. The determining cause of this condition he learned to have been an altercation, from which time the patient had grown worse. The reporter thought the asthma to be uræmic in origin. The organic materials thus retained act as irritants to the terminal filaments of the vaso-motor nerves, producing a spasm, which was manifested in the lungs by the deficient aëration of the blood and the dyspnœa. That

retention of the nitrogenous material is capable of producing increased vaso-motor tension, has been proved by the experiments of Dr. Parkes, published in the *Lancet*, of May, 1874, in which he states that after keeping a number of soldiers upon a non-nitrogenous diet, and then upon a nitrogenous diet, he found that the arterial pressure was proportionate to the increase or diminution of the nitrogenous food. It is to be diagnosed by the presence of the symptoms of asthma, and the absence of bronchial spasms. The paroxysm occurs because the blood cannot reach the air—not because the air cannot reach the blood.

Spina Bifida Treated with Plaster-of-Paris.—Dr. Lewis A. Sayre, in a clinical lecture, says that the object of mechanical treatment is simply to protect the parts from all pressure and all possible injury until the process of ossification is completed throughout the entire length of the spinal column. This he accomplishes by first slipping over the trunk a tightly-fitting knit-shirt, similar to that used in applying the plaster jacket in Pott's disease or lateral curvature. Then, having the patient held in a firm position, but without being suspended, he passes a few turns of a plaster bandage around the trunk and pelvis in such a manner as to cover the spina bifida completely. After this, he cuts off a piece from both the top and bottom of the shirt, and turns the remaining portions over the part covered with plaster. He then makes a few more turns of the plaster bandage outside of all, and finally, before the plaster has had time to set, presses in the plaster with his hands on both sides of the tumor, so as to make the covering more cup-shaped, and thus protect it the more completely from all pressure. He then makes a hard, artificial roof for the spinal cord and nerves, which takes the place of the normal bony one until nature supplies the deficiency. If, on account of the child's growth, other similar plaster casings are required, they can be applied in the same manner. He puts the child on a course of phosphate of lime, with a view of increasing the earthy phosphates in its system, and thus facilitating the further ossification of the spinal column.—*Boston Med. & Surg. Jour.*, June, 1880.

Compressing the Iliac with the Hand in the Rectum to Control Hæmorrhage during Hip-Joint Amputations.—The fact that this procedure is practicable has only of late been appreciated. The credit of suggesting and demonstrating its utility belongs to Dr. Frank Woodbury, of Philadelphia. That this

method of Woodbury's merits confidence is attested by the fact that it has received the endorsement of Gross, Van Buren and Callender. Whenever practicable, its advantages over any other method hitherto suggested is at once obvious. The object desired is to introduce the hand into the rectum and compress the iliac vessels as they pass over the brim or inlet of the pelvis. The hand should be well annointed, folded in the shape of a cone, introduced with the dorsum towards the sacrum, and by gentle, slow pressure, overcome the sphincter muscle. When the hand reaches the sigmoid flexure, the hand may be pronated, when the vessels may be found immediately under the fingers. In controlling the right common iliac, the right hand should be used, and the left hand for the left artery. With the elastic bandage on the leg and the hand in the rectum, amputation is almost bloodless.—*College & Clin. Rec.*, May, 1880.

Jaborandi in Pleuritic Effusions.—The London correspondent of the *American Practitioner*, June, 1880, says that Dr. Hunt, of the Wolverhampton Infirmary, has been trying jaborandi for pleuritic effusions upon theoretical considerations. He says it diminishes the watery contents of the blood vessels; it causes an absorption of fluids from the tissues and cavities of the body; and, in fact, it is more than probable that the vessels, in such cases, take up more than is secreted by the skin. He then demonstrates, by the use of the hæmacytometer, that the effect of jaborandi upon the blood corpuscles is conformable with this hypothesis. He usually gives one drachm of the fluid extract three times a day, or every four hours. His cases bore the jaborandi well, and one was found to increase in weight while sweating profusely under its influence. With the exception of the profuse diaphoresis and the salivation, there were no inconveniences attending its administration. No supra-pubic pain was noted in any of the cases. No good results were obtained till profuse diaphoresis was excited. The correspondent thinks the results attained were very satisfactory.

Lobelia for Eruption due to Poison Oak.—Dr. Jacob Michaux, of Cedar Point Landing, Va., in the December No., 1879, of the *Medical Brief*, says that the tincture of lobelia applied to the eruption caused by rhus toxicodendron, six or eight times daily with a soft piece of old linen for three or four days, will cure permanently without pain. One ounce of powdered lobelia macerated in half a pint of whiskey will act perfectly well.

Book Notices, &c.

Naso-Pharyngeal Catarrh. By MARTIN L. COOMES, M. D., Professor of Physiology, Ophthalmology and Otology in the Kentucky School of Medicine, etc. Louisville, Ky.: Bradley & Gilbert, 1880. 8vo. Pp. 165. Cloth. Price, \$2. (From Publishers.)

We find but little in this book that we have not found elsewhere. But, in the main, it is an excellent compilation from the contributions of eminent special authorities and from the common run of *general* physicians' experience. This fact makes the book an exceedingly valuable one to the general practitioner—being on a subject of frequent importance to him in his regular round of duty. Some diseased conditions and instruments are described and illustrated, which the ordinary physician may not be able to manage, for want of means; still, most of the usual troubles are so plainly described, and their proper treatment so plainly defined, that but few need hesitate to follow the exact directions which the author herein lays down. We notice with gratification the reproduction of Dr. Ephraim Cutter's recent articles on the subject of infusorial catarrh, which too often is miscalled coryza and other misnomers, for want of the proper use of the microscope in diagnosis. Dr. Coomes adds nothing to the literature of this subject, which we regret. But, taking the book as a whole, so far as the author's part is concerned, we must pronounce it an exceedingly useful one to every physician. We wish we could say the Publishers had done their part as well. The paper is heavy and common, and the 165th page (of index) is printed on the reverse side of an advertisement page containing a "List of Text-Books for sale by Bradley & Gilbert." Louisville ought to do better.

Photographic Illustrations of Skin-Diseases. By GEORGE HENRY FOX, A. M., M. D., Clinical Professor of Dermatology, Starling Medical College, Ohio; Surgeon to New York Dispensary, Department of Skin and Venereal Diseases, etc. Forty-eight Colored Plates taken from Life. New York: E. B. Treat, 1879-80. Royal quarto. (From Publisher.)

We have received the first ten *Parts* of this magnificent work, which is to be completed in twelve Parts. Each Part is remarkably cheap at \$2, representing, as it does, four distinct skin diseases, photographed from nature, on card board of the first quality, and colored by hand by the skilled anatomical artist, Dr. J. Gaertner, formerly a physician and student under Hebra, in the General Hospital of Vienna. In

the absence of clinical experience, nothing can take the place of these plates, which are accompanied by sufficient explanatory text. To the *general* practitioner especially is this serial dermatological atlas particularly valuable, since by simply casting his eye over the forty-eight plates he will be quite sure to recognize the disease he is seeking to diagnose. After recognizing the disease by the picture, he can then intelligently turn to the literature of the subject in any of the standard works. These life-like "Photographic Illustrations," together with the two quarto pages of descriptive text which accompany each picture, take the place of clinical lectures for those whose circumstances will not admit of their visiting the wards of hospitals. Every private practitioner has cases of skin disease which challenge his diagnosis and defy his treatment. This work very materially helps him out of his troubles. It is the very best of the class that we have seen.

Practitioner's Hand-Book of Treatment. By J. MILLNER FOTHERGILL, M. D., Memb. R. C. P., Lond., etc. Second Amer. from Second English Edition. Enlarged. Henry C. Lea's Son & Co. 1880. 8vo. Pp. 647. (For sale by Messrs. West, Johnston & Co., Richmond.)

Fothergill's "Principles of Therapeutics," as this book is otherwise titled, has become so familiar through the first edition, as an authority, that it is hardly necessary to say more than that a second edition is already demanded. It has been said that the work is too theoretical, and that it does not bring sufficiently forward the latest remedies. So it may be for the wish of routinists who prefer to copy prescriptions of "what is good" for such and such a disease. But prescription writing is not, by any means, the sole object of the author. The prescriptions he gives are all good *when intelligently applied*. The chief object of the author is to induce physicians to prescribe more rationally—less empirically. We admit that, in the present stage of medical science, many prescriptions have to be, for certain conditions, purely empirical—without satisfactory explanation of the *modus operandi*; but we must acknowledge, on the other hand, that empiricism has been carried too far. Dr. Fothergill's book relates almost wholly to the principles upon which rational treatment should be based; and as such it is unreservedly recommended for the study of all students and practitioners of medicine. The additions made by the author in his second edition do not strike us as being material. Even the "Appendix" remains unchanged—treating, as it does, too briefly of salicylic acid, jaborandi and the formula of hydrobromic acid.

Management of Children in Sickness and in Health. By AMIE M. HALE, M. D., Philadelphia. Presley Blakiston. 1880. 12mo. Pp. 110. (For sale by Messrs. West, Johnston & Co., Richmond.)

This is really a very readable book, not so much because of the amount of new information it gives the general practitioner as because of the style which the authoress uses in impressing important facts upon the mother and the nurse. Indeed, it is the book for doctors to recommend to their female nurses; and to patients who are mothers, or who are expecting soon to be. Mothers will find it an excellent guide-book for the ready recognition and treatment of many of the ailments to which children are constantly subject. It serves her purpose first-rate until the doctor comes. The book concludes with many aphorisms and some useful formulas. We recommend this "book for mothers."

The Skin and its Troubles. New York: D. Appleton & Co. 1879. 16vo. Pp. 94. Cloth. Price, 40 cents. (For sale by Messrs. Woodhouse & Parham, Richmond.)

This is one of the "Health Primers," edited by able English authors, which entitles the series to the fullest public confidence. These "Primers" are intended to enlighten the educated masses of society, and thus to teach them the wiles and dangers of the quackish advertisements intended for the pecuniary income of incompetent writers. The little book before us, after some introductory remarks, contains chapters on the structure and functions of the skin, how its functions are to be kept in healthy activity, skin troubles from poisonous clothing, injudicious use of domestic remedies, etc. The remaining 40 pages are devoted to the *hair*, its functions and its diseases. There is nothing in the book that is not in ordinary text books on the subject; still, for the class of readers for whom it is intended, it gives a great deal of useful information.

Editorial.

Medical Society of Virginia.—About September 20th the official announcement of the eleventh annual session of the Medical Society of Virginia will be issued. This announcement will contain a statement of the reduced railroad and hotel charges which may be granted to fellows and delegates in attendance upon the sessions. The Society will convene

in Danville, Va., at 7½ P. M., Tuesday, October 19th, 1880. The profession of Danville is awake to the importance of this session, and is doing what it can to make it a perfect success. We are glad to learn of the promise of a goodly attendance, and of an interesting meeting in every particular. Already applications for fellowship have begun to come in, and it is to be expected that all who are interested in the advancement of the regular profession of Virginia in scientific knowledge and in general medical esteem will encourage their regular medical friends to join the Society, and contribute of their experience and study to its annual *Transactions*.

Prize Essay on the Functions of the Optic Thalamus.—Dr. Wm. A. Hammond, of New York, offers a prize of five hundred dollars, to be awarded by a committee of the American Neurological Society, at the meeting in 1882, to the author of the best essay on the subject named. This prize is open to neurologists in all parts of the world. Should no essay be deemed worthy, the offer will continue until 1883.

Queries and Answers.

Subscriptions to Professor Claude Bernard's Monument Solicited.

Mr. Editor,—Having been selected by the Paris Committee (Messrs. Ranvier and Dumontpallier), having charge of the subscription for a monument or memorial to the late Prof. Claude Bernard, to represent them in the United States, I beg leave to be allowed to use your columns for the purpose of appealing to the members of the medical profession, and all others interested, to subscribe to this worthy project.

I need hardly remind your readers of the great debt which every practising physician owes to the labors of the illustrious physiologist whose memory we are asked to honor in this way.

All inquiries and subscriptions, in the shape of bank checks or postal money order, should be addressed to me.

Yours, very respectfully,

E. C. SEGUIN, M. D.

New York, July 31st, 1880.

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Original Communications.

ART. I.—**The Widespread Influence of the Cerebro-Spinal Centres over the Ganglionic Plexuses.** By HENRY FRASER CAMPBELL, M. D., Ex-President Georgia Medical Association, etc., Augusta, Ga.

I. SYNCOPE AND NAUSEA PRODUCED BY DRY-CUPPING THE SPINE.—I find no-where the report of an observation which has become quite familiar to myself—viz., the nausea and fainting which are found to result from the application of cups over the dorsal region of the spinal cord. I will state the following cases as briefly as possible, for the single fact of *syncope* is the only one which, in the present connection, I propose to consider :

CASE I.—S. J., a young man—a lawyer—aged 29 years. Habit robust, and of good general health : complained of intercostal neuralgia. On examination, I found tenderness on pressure over the 3d, 4th and 6th dorsal vertebrae. I determined on dry-cupping of this region. He was placed astride the seat of a chair, with his chest resting on the back. Two cups were applied with moderate force to the surface over the spine between the scapulae. Mr. J. was not impressed with any nervous dread of the application. He was in high spirits, and had just been laughing at his own remark, "This is the first operation that was ever performed in my presence which I was unable to see." At this moment, he became

very pale and livid; his eyes turned upward, the facial muscles began to jerk, and he became entirely unconscious. He would have fallen from the chair, but I immediately seized him, removed the cups, and laid him gently upon the floor. He remained in this unconscious state for some five or six minutes, when he gradually recovered, and was led away to his bed. He continued to feel nauseated and faint during the entire afternoon; did not rise from his bed, but on the following day was in his usual condition of health and spirits.

CASE II.—M. J., a Jewish merchant, aged about 40 years, very robust and plethoric, with black hair, and full, round, red face, complained of oppression in breathing. There was no indication, on auscultation, of either cardiac or pulmonary lesion. Regarding the symptoms as the result of spinal irritation, I applied several large cups with considerable force to the spine between the shoulders. This patient was also astride an ordinary chair, with his chest resting on the back of the chair. His wife and sister were present, and he was talking rather jocosely about the ludicrous position I had placed him in for the operation. No mental impression could be suspected in his case. The two or three cups had been applied but a few minutes when his countenance underwent a most extraordinary change. His usually florid and brunette complexion became livid—almost green; his eyes rolled in the sockets; his hold upon the back of the chair became relaxed, and he would have fallen, had I not caught him and eased him gradually to the floor. He was unconscious for a moment or two, but soon recovered. He was nauseated, but did not vomit. It being near bedtime, he undressed and went to bed. In the morning there were no remains of any unpleasant result of the cupping.

CASE III.—A. M., a young man, aged 26, teacher of a county school in a healthy region. General health excellent; habits good. He complained of "pain in the side." My nephew and colleague, Dr. A. Sibley Campbell, decided to apply dry cups to the vertebræ corresponding to the intercostal pain. Two large cups were applied with a moderate degree of pressure to the dorsal vertebræ between the shoulders. The patient was in the position above described—sitting upright with back exposed. The cups had been drawing but a few minutes when symptoms of fainting began, and before he could be lifted to the couch he had become entirely unconscious. But a few moments in the horizontal position was sufficient to recover him. After remaining a short time in the office, he went out into the street and attended to his business without any return of unpleasant sensations.

CASE IV.—B. W., a young man, aged 23, a brick-mason and plasterer by trade; spare in habit, general health good; temperate and very active. This patient complained of fullness in the epigastrium, and was troubled with belching and flatulence, and often symptoms of a dyspeptic nature. Two large cups were applied to the dorsal spine between the shoulders while he was in the sitting posture. The drawing had been continued not over five minutes, when he said he felt sick. The cups were instantly removed with the view of laying him upon a couch near by. This proved to be impossible, so rapid was the syncope; and without extricating him from the chair of which he was astride, I turned him over to one side that he might lie horizontally upon the floor. The loss of consciousness was but momentary, but he recovered with some little confusion as to length of time and how he came to be lying on the floor. After taking a glass of water, he, in a short time, walked home, telling me afterwards that he had continued to feel quite well.

In this, as in the three preceding cases, there could not be entertained the suspicion that there was any mental impression or dread in regard to cupping as an operation. B. W. had a remarkably "strong head" in resisting influences that ordinarily produce giddiness. As a pastime, he was seen to stand erect on the shoulders of the marble statue surmounting the shaft of the Confederate monument in this city—a most vertiginous feat for most persons even to witness!

CASE V.—H. A. C., a lawyer, aged about 35 years. This gentleman was pale and delicate—somewhat emaciated; had suffered with intercostal neuralgia, loss of appetite and constipation. Though not confined to bed, he was decidedly out of health. Two large cups were applied to the lower cervical and upper dorsal region while the patient was in the sitting posture. The cups, after drawing, had been re-applied lower down between the shoulders. Apprehending syncope, I had asked him, more than once, if he felt like lying down. He was amused at the suggestion, but in the very act of refusing to take the couch, he suddenly became pale and said, "I had better lie down—I feel badly." I assisted him to the couch, and he recovered in a short time without accomplishing complete syncope. In less than half an hour, he insisted on going home, as he felt fully as well, and even better, than when he came to be cupped.

Besides the above five cases, there were perhaps two or

more others, about the incidents of which I cannot now be accurate. It is, however, unnecessary to prolong the detail of instances in which the effect of syncope has followed dry-cupping in the region referred to, and in the position of the patient above described. So confident am I that this experiment, should it be repeated under exactly the same circumstances by others, in any considerable number of cases, will be followed, one or more times, by similar results—and that probably it has already been observed—I am almost tempted to make a *prediction* to that effect. Somebody will find it out before very long.

Dry-cupping, as a therapeutic agent in a great variety of neuroses, has been much used in my private practice, and strongly urged in my clinical lectures for years. It is probably due to its frequent application, and to the position of the patient in which it is made by me, that so large a number of these unusual facts have transpired under my observation.

It will be observed, that among the cases here reported—nor has there ever occurred any such to me—there is not one instance in which a female subject was affected with syncope. There may be other causes for this difference of results, but I have attributed it principally to the fact, that I seldom, or never, apply cups to women in any other than the recumbent posture. Otherwise their application is troublesome; whereas, in the case of men, the position I have described is extremely convenient. On account of the frequency of fainting, this position is now almost entirely abandoned both by Dr. Sibley Campbell and myself in cases of men as well as of women.

I have purposely restricted the above enumeration, so far, to cases in which the cardiac plexuses appeared to be principally impressed. Below I also furnish a brief report of a few other cases in which impressions made upon the spinal centres were, in an analogous manner, reflected upon the ganglionic or secretory plexuses of the stomach and other viscera of the abdominal and pelvic cavities:

II. CASES ILLUSTRATING THE INFLUENCE OF SPINAL CENTRES OVER GASTRIC AND MESENTERIC GANGLIONIC PLEXUSES.—The cases heretofore presented may be said to illustrate the path-

ogenic effect of spinal impressions upon the heart through the cardiac plexuses. The two or three, now to be briefly reported, as strongly demonstrate that sometimes a most important therapeutic result may be attained through similar avenues of reflex action.

Perverted Gastric Secretion Corrected by a Blister to the Dorsal Spine.—CASE VI.—January, 1849, P. McC., aged about 22 years, Irish laborer on Augusta canal, without any previous symptoms of disease, was suddenly seized with gastric flatulence and the eructation of surprising volumes of gaseous matter by the mouth. I was called to him at midnight, and was told he had been awakened by painful distension of the stomach, and on sitting up began to discharge the gas by rapidly repeated "belchings." This had continued without cessation for some hours. The patient was greatly alarmed, and willing to submit to any treatment proposed. Various carminatives, as peppermint, chloric ether, etc., failing to modify the symptoms, a hot water emetic was administered. It acted well, emptying the stomach of the undigested matters of an ordinary supper, but without arresting the production and rapid discharge of gas. After trying, during several hours, the various expedients ordinarily used in such cases, a mustard plaster was applied to the spine between the shoulders. This afforded relief for a few moments, when the belching returned, but with less frequency and diminished volumes of gas.

Finding several of the spinous processes in the lower cervical and upper dorsal regions tender on pressure, and encouraged by the effect of the sinapism, a blister was applied over this region. On my return next day, the attendants reported that "the belching had continued until the blister began to draw, when it ceased, and there had been no return." This patient was under observation for some months afterwards, and had during that time no recurrence of unpleasant symptoms.

CASE VII.—August, 1865, J. P. F., a planter, aged 48 years, had been under the care of a homœopathic physician for some five or six weeks—as reported, "with dyspepsia." I found him half-dressed and walking about the room, and in great distress; said he had been "belching," as I saw him then, "for some six weeks or more." The eructations were incessant—the gas odorless, so far as I could perceive. He said he "brought up nothing but wind," though he took some food several times during the day. The belching in-

terfered with his sleep, as he could not lie down without the greatest discomfort. He was very much alarmed at his condition. The rapidity of the eructations reminded one of the barkings of a dog, and interrupted greatly the account he attempted to give of his case. Remembering the effect of the blister in the only similar case I had ever witnessed previously, I examined the cervical and upper dorsal regions, and finding tenderness, applied dry-cups, with considerable force, from the 3d cervical to the 8th dorsal vertebra. The effect was magical. On the application of the first cup, which was over the third dorsal spine, the patient proclaimed himself better, and the belching had entirely ceased before the removal of the cups. He besought me to come and cup him the next day, fearing a return of the disease. I told him his spine would not bear the repetition of such a cupping under four or five days, when I promised to return. Before that time, he sent from his plantation a messenger, informing me that my visit was unnecessary, as "he had not belched once" since the application of the cups. Ten days afterwards, this gentleman sent for me in great distress; all his symptoms had suddenly returned. I found that he had been extremely imprudent in his diet. He had taken, just previous to the recurrence of the attack, more than a pint of rich chocolate. He was now eructating as constantly as before. The cups were immediately applied as before, and the belching disappeared at once. This patient has been under my observation constantly since for over 12 years; and though he has purchased a case of instruments of his own, and applies dry-cups between the shoulders on all occasions to others, I am certain he has not required the use of them for himself from any return of his old affection.

Remarks.—From the observation of the above two cases, I seldom conduct the treatment of cases of dyspepsia or indigestion—especially where gastric flatulence in any degree presents itself as a symptom—without advising dry-cupping, or some other spinal revulsives, as an important element of the treatment. The result has been highly satisfactory in a large number of cases.

III. MESENTERIC PLEXUSES—OBSTINATE CONSTIPATION AND SYMPTOMS RESEMBLING ILEUS RELIEVED BY DRY-CUPPING THE SPINE.—CASE VIII.—J. M., merchant, aged 36, regular and temperate habits, except in using tobacco, had been subject for years to serious attacks of "cramp colic," attended sometimes by nausea, and always by obstinate constipation, with

alarming pain and distress. In these attacks, there was never any passage of gas from the rectum, but frequently large quantities would be evacuated by the mouth—but not in any comparison to the two preceding cases. To be brief, I will say that in the two last attacks of the above character in J. M., after failure of relief from purgatives, O'Beirne's tube and multitudes of ordinary enemata, freely dry-cupping the spine between the shoulders and in the lumbar region was followed by relief of pain, spasm, eructation and constipation so promptly that it would be illogical to attribute the result, in the same degree, to any other agent used during the attacks.

In addition to the above, I have on record many cases equally striking—cases of relief from aberrated action in the kidney secretion, in menstruation, and in ovarian activity. They all illustrate spinal control over the renal and hypogastric plexuses, and that spinal revulsives in such cases act therapeutically. But I am unwilling, at this time, to prolong the consideration of a subject already clearly demonstrated, and perhaps more or less familiar to many.

As to the *instrumentalities* of reflex secretory action in the above cases, it is unnecessary at the present day to enter into elaborate discussion. It will, however, be pertinent to the explication of some of the observed results to call attention to the fact, that the spinal elements entering into connection with the great splanchnic nerve and celiac ganglion *take their origin in the four or five lower cervical and four upper dorsal vertebrae*; and we have, perhaps, in this a satisfactory explanation of the directness of the results as affecting this portion of the spinal cord and the viscera herein shown to be impressed through the ganglionic plexuses.

To discuss further than this at present the *rationale* of the phenomena exhibited in the foregoing cases, would occupy more space than can be granted to a single paper. The profound and widespread influence exerted on the ganglionic plexuses by impressions made through the spinal centres, both in the production and in the removal of diseased conditions, is a subject of importance to the pathologist and to the practitioner. I have not had occasion to discuss the subject recently, but would refer those who wish to pursue the investigation of the phenomena concerned in the present cases to

writings of Sir Benjamin Brodie* on the influence of the brain over the heart; of John Reid† on influence of the pneumogastric and sympathetic nerve; of Brown-Sequard‡ on the medulla oblongata, and to my own paper in the *Transactions of the American Medical Association*, "The Law of Excito-Secretory Action as Applied to the Heart in Malarial Fever," § Vol. XI, 1858, p. 635. In a future paper I hope to consider more particularly, but briefly, some of the therapeutic relations of the reflex ganglionic influences involved in some cases to be hereafter reported.

INFLUENCE OF SPINAL CENTRES OVER THE CUTANEOUS CAPILLARY CIRCULATION—REFLEX VASO-MOTOR ACTION.—The one or two cases now to be briefly mentioned, though closely allied in some of their phenomena to those above reported, cannot be presented as illustrative of spinal influence over plexuses. Yet there is a general recognition of ganglionic instrumentality among neuro-physiologists in the perturbations in the cutaneous capillaries under certain sections and irritations of the cord, as illustrated in the experiments of M. Claude Bernard (1852-3) and of Dr. Brown-Sequard, by whom they were repeated and considerably extended. Since the microscopical observations of Jocabowitsch (1857), resulting in the demonstration of the "intermediate ganglionic cells" in the spinal cord with fibres uniting them both to the sensory and motor elements of this centre, we may the better interpret phenomena such as are herein presented independently of either ganglia or sympathetic filaments.

CASE IX.—H. L., aged about 30 years, became the subject of "boils" in the month of February, 1858. This furuncular inflammation appeared on the back; and the abscesses, not more than three or four at a time, were located on the dorsal and lumbar regions, and were of the most painful

**Physiological Researches*, London, 1857, p. 2.

†*Anatomical, Physiological and Pathological Researches*, p. 170, 1837.

‡*Physiology and Pathology*, New York, 1853, p. 40.

§Also *Southern Medical and Surgical Journal*, June, 1850, "The Influence of Dentition in Producing Disease," and *Transactions of the American Medical Association*, Vol. X, p. 465, 1857, prize essay, "On the Physiological and Pathological Relations of the Excito-Secretory System of Nerves." Also M. Claude Bernard, "On the Sympathetic Nerve in Reflex Phenomena," *Gazette Medicale*, Paris, 1853, and *Experimental Physiology*, Paris, 1854, 1855. And Dr. Marshall Hall, "The Excito-Secretory System of Nerves," see *London Lancet*, March, 1857. Also, M. Charcot's *Lectures on Diseases of the Nervous System*, delivered at La Salpêtrière. Henry C. Lea. Philadelphia. 1879.

character. These "crops of boils" had continued to recur for several months, at intervals of two or three weeks. At the time of my examination, which was in the fourth or fifth relapse, four boils were observed on the left side below the scapula, and occupied a region between the fifth and eighth ribs near the centre of the shafts of these bones, and at distances ranging from four to six inches from the spinous processes of the vertebræ. They were all very nearly in the same stage of progress. Each had an intensely red and inflamed areola very tender to the touch, while the boil itself was acutely tender. The surrounding skin was of normal color and apparently healthy, presenting no tenderness in any part. When the surface between the affected spots and the spinal ridge was pressed upon there was no tenderness felt or manifested. Turning my attention now to the *spinous processes*—examining by pressure from above downward—no tenderness was complained of till I arrived at the first dorsal vertebra. This was exquisitely sensitive to pressure, but in none of the spines, either above or below, till I arrived at the last dorsal vertebra, was there any obvious tenderness. This was only slightly tender on pressure.

Having frequently observed that the pain of intercostal neuralgia was promptly relieved by revulsives to the corresponding vertebra, and wishing also to test the opinion that this tenderness in the spinous process had an *etiological relation* to the abscesses under examination, I applied a plaster of meal and mustard to the back of the neck, so as to cover the affected vertebra. In less than an hour the pain had entirely subsided, together with the exquisite tenderness of the inflamed parts, and the patient was able to wear his coat with apparent comfort. Witnessing such decided relief from the sinapism, it was determined to apply some revulsive which would be more permanent in its effects. This was, however, neglected until the occurrence of the second attack subsequent to the mustard plaster. The patient objecting to a blister, this portion of the spine was, during the height of this painful attack, subjected to a thorough dry-cupping. The relief from pain was *immediate*. The "crop of boils" went on to maturation with but little inconvenience to the patient, as when the mustard had been applied; and since then there has not been the slightest indication of a relapse, nor any tenderness of spine. The relief was permanent.*

*The above is condensed from the details of a case illustrating other points connected with the progress of furuncle, and will be found recorded in full in a former paper of the present writer. See *Transactions of American Medical Association*, Vol. XI, page 610, May, 1858.

In the case just given the spinal tenderness appeared to be related to a condition of tissues, corresponding to the distribution of nerves connected with the affected portion of the cord, which was highly inflammatory. There was active localized hyperæmia in the capillaries resulting in plastic exudation and ultimate suppuration. The last example now to be given, while it seems none the less to be connected with some abnormal condition of a section of the cord, will be found to illustrate a very different phase of capillary aberration—not abnormal activity, but stasis or “passive congestion.” The varied and peculiar phenomena of this case, were it apposite to detail them in this connection, would suggest several very fertile questions for investigation; but I restrict my consideration now only to the details which relate to the effect of centric change upon the capillary circulation.

CASE X.—D. L., a young man, aged about 20 years, was affected with general hyperæsthesia of a peculiar character affecting painfully the face and hands more particularly. He was intolerant of light, and the distress produced by noises around him was quite obvious. Accompanying this sensitive and excitable state of the nervous system, which had existed for several months previous to my examination, was the feature for the reason of which I refer to the case. *The circulation in the capillaries* of the hands and face, and in a much less marked degree in other portions of the cutaneous surface, was evidently greatly retarded. The lips, conjunctiva, entire face and neck, also the hands and finger nails, presented a congested or turgid appearance—being at times almost of a purplish hue. He did not complain of difficulty of respiration, nor was there any irregularity in the heart's action as manifested by the pulse. Examination of the vertebræ, in the cervical and upper dorsal regions, showed that the slightest pressure produced intense pain.

Regarding this unusual sensibility in the vertebræ as indicative of some abnormal condition of the cord influentially connected with the capillary paresis, as well as with the cutaneous sensibility, I advised a blister to the cervical and a portion of the dorsal region, and also efficient daily portions of quinine as an adjunct to the treatment.

This patient being distant from me on the railroad, he was not visited for an entire week. He was changed for the better far beyond my expectations. Besides the relief of the exalted tactile sensibility, the capillary congestion of the face

and hands had entirely disappeared; he was somewhat paler than natural, but cheerful and happy at the change that had been so suddenly brought in his condition. He made a rapid and satisfactory recovery—no return of the congestion in any degree having afterwards been manifested.*

As the foregoing cases have been presented solely with the view to any practical value they might possess, and not as "advances in physiology," I forbear entering into the somewhat extended discussion which some of the more unusual phenomena might seem to invite.

In the present paper, I have purposely restricted myself to the consideration of such aberrations of function as are due to morbid conditions of the *spinal centres*. I hope hereafter to demonstrate that there is no aberration of function that can be thus *directly* produced, which may not be as markedly evoked through these same centres when acted upon by centripetal nerves under *peripheral* irritation.

ART. II.—**Antiseptic Medicine.** By RICHARD H. LEMMON, M. D.,
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Perhaps no question has occupied so fully the medical mind for a score of years back as that of antizymotic medication. Dependent and coincident with the theory of *contagium vivum*, as the latter has gained strength and support, the brilliant promises, held out theoretically from the use of the former, have given it a higher and higher place in modern therapeutics. For, from the conception that infectious diseases were due to organic forms, which forms were capable of living under special and restricted conditions, to the idea of destroying the suitability of their environment in order to cut short the disease, the transition was easy and natural. Let us find means, we thought, of disturbing the data demanded for the life and development of the contagia without affecting seriously the health of the individual, and we shall be able at once to destroy them and cure the disease. So far very well.

*Fuller notes of the above case, in some of its important bearings, have been furnished, and may hereafter be given to the profession in a different connection.

Many experiments were made to determine the comparative antiseptic qualities of agents which admitted of innocuous administration, and, naturally, very many interesting results were obtained. Soon it was declared that in the compounds of sulphur, carbolic acid, and later, salicylic acid, quinine, and other agents of minor importance, we should look for sure and trusty weapons in combating the zymotic enemy. So convincing were the experiments, or, rather, so fair the prospects held out, that it is with shame I have to write that their application has been attended with unceasing disappointment and failure—results nowise superior to the former empirical practice having attended their use. Notwithstanding this, so firmly has the theory been implanted in our minds that most of us still cling to the principle, and continue to fortify our patients from infective plagues with 20 minim doses of sulphurous acid, half-drachm doses of quinia, or draughts of other agents which, through our microscopes, have appeared peculiarly unappetizing to microphytic life.

Now, whether *contagium vivum* be a true theory I shall not attempt here to decide; only before resigning it to that overwell-filled repository of exploded ideas and threadbare theories—our medical lumber closet—I will offer a few words of apologetic explanation for the meagre returns our prodigal outlay of antiseptic medication has brought in. It is true that we give the most approved antiseptics quite ineffectually; but it is unfair at once to argue from this fact the fallacy of the principle which has led to their administration until we determine whether or not they have been properly administered.

Let us apply the method of Zadig, and see if it is rational in us to expect any other effect than a negative one from the course which we have pursued. Some one takes a zymotic disease. Salicylic acid being considered by his physician a good antiseptic, he gives it in maximum doses, so that in twenty-four hours the patient has swallowed, say, half an ounce of it. The disease is not cured. Now for the reason: Experiments* have shown that in solutions of less than one-

*See my article in *Virginia Medical Monthly* for October, 1878.

half per cent. salicylic acid is *not* an active antiseptic; so that, although we have given an antiseptic, we have not given it in antiseptic doses. Plainly, in order to obtain its antizymotic action on the human body, we must add salicylic acid to the animal fluids until they contain of it from one-fourth to one-half per cent.; in other words, in order to disinfect a man of average size we should charge him with it to the amount of three or four ounces, or about six times as much as we can safely give. Also, as it is very rapidly eliminated, he would have to swallow this quantity in a prescribed space of time—say six hours. It is quite fair, then, to declare that salicylic acid has never been administered rationally as a systemic antizymotic. The same is true, so far as I know, of the administration of all other antizymotics (with, perhaps, the exception of one I shall have occasion to mention further on). In no case have they been given in that proportion which experiment has shown to be effectual *without* the human body. Can we expect them to act more powerfully within it?

As regards quinine, which I am led to believe, from experiment, is the most powerful of the antiseptics usually given, rather more than half as much would be necessary as in the case of salicylic acid—about two ounces (or more accurately, between one-fourth and one-fifth per cent. of two-thirds of the weight of the body). It would seem that the question, *Can we successfully apply antiseptic medication to the treatment of disease?* must be answered, as yet, negatively. Apparently, the difficulty lies in making of the animal fluids an antiseptic solution; for when I say in quinine we have the most powerful antiseptic agent we can give internally, that there is required of quinine two ounces, and as that amount is far too large a dose to venture upon, the outlook does not appear promising. What we must look for is not an antizymotic, but an agent which admits of antizymotic administration, and not till we find such a one can we hope rationally to apply the antiseptic method to the cure of systemic disease, and test the truth of *contagium vivum*. The milder antiseptic agents, which may be given in large quantities, offer, I think, the best hope to the experimenter. Thus salicine produces a

more decided antiseptic effect than salicylic acid (though bulk for bulk much weaker, for the reason that it may be safely given in larger doses; sodium chloride and sodium benzoate than carbolic acid, there being fortunately no proportion between their toxic effect on man and ferments.

From the reports of Buckholtz, Klebs, Hoffman and others, we were led to believe that in *sodium benzoate* we had an agent which could be administered in quantities sufficient to disinfect the human organism. The successful reports of its use in diphtheria for a time tended to confirm our good opinion, but the experience of Widenhofer and Schüller, together with the carefully-conducted experiments of the latter, still leave the question of its virtues an open one.

Just here, mention should be made of a mistake most experimenters on the qualities of systemic antiseptics have fallen into. It is that they have greatly underrated the volume of fluid with which the antiseptic, after its administration, is to be diluted. Their calculations in every case which I have noted of the amount of the fluid to be disinfected, includes the blood only. So palpably is this an error that we have only to read a single history of the autopsy of an animal, dead of a disease caused by a demonstrable contagion, such as the *bacillus anthracis* or *bacillus suis*, which are found swarming in every one of the animal fluids, and throughout every tissue, to decide that nothing short of disinfecting all the fluid contained in the animal economy could be of the least service. This would increase the denominator of the fraction representing the amount of the disinfectant contained in the fluid to be disinfected about three times, reducing its value so greatly as to preclude even an expectation of an absolute disinfection of the whole body. In future calculations, it is to be hoped that this source of error will be rigidly excluded, if only to avoid the opprobrium which such false evidence would array against the theory of *contagium vivum*.

In conclusion, I would say, regarding our present irrational application of antiseptic therapeutics, that it is worse than idle to continue to give medicine after a fashion which experiment teaches us cannot be other than ineffectual. For the present, practitioners should be content to wait until an

antiseptic can be found which we can harmlessly administer in proportion sufficient to disinfect an amount of fluid equal to from one half to two-thirds the weight of the individual to whom it is given.

ART. III.—**Ophthalmological Notes.** By JOSEPH A. WHITE, M. D.,
late Professor of Eye and Ear Diseases in the Washington University, Surgeon
in Charge of the Richmond Eye, Ear and Throat Infirmary and Dispensary,
Richmond, Va.

DUBOISIA IN EYE DISEASES, WITH A CASE OF INTOXICATION FROM ITS LOCAL APPLICATION TO THE EYES.—It is about two and a half years since the alkaloid duboisia was first extracted from the Australian corkwood tree called duboisia myopoides. It was found to be a valuable mydriatic, with properties almost identical with those of atropia, with more prompt and powerful mydriatic effect than the latter, and more evanescent, and consequently, for some purposes, preferable to it. Moreover, in cases of idiosyncrasy, to atropia, duboisia could be used in its place instead of the hitherto almost useless substitutes of extract of belladonna or hyoscyamus. Having read of its very great superiority over atropine, of its advantage in not producing irritation from long use as atropia sometimes does, and of its relative freedom from the danger of producing constitutional effects, I first procured a solution of the sulphate about one year ago. So far my use of it has been restricted to cases of spasm of accommodation, to detect errors of refraction, to cases of posterior synechiæ, and to those cases where atropia does not produce free dilatation of the pupil. It undoubtedly does paralyze the accommodation more promptly than atropia in all cases, and its effects pass off somewhat more quickly. But in cases of posterior synechiæ, I have not found that it tears them apart any better than atropia, or even as well. Moreover, in the ten years I have been using atropia, I have never seen a case of such decided idiosyncrasy to it, nor one in which the physiological effects of that drug were shown so markedly or alarmingly, as the following case exhibited after the local

instillation into the eye of a few drops of a solution of sulphate of duboisia.

A. T., a sexton, aged 76, applied for treatment March 22, 1880. Has been blind in right eye twelve months; left eye now failing. Epiphora in both eyes from slight senile ectropion. Right eye shows tremulous iris, complete opacity of lens and nebulous cornea—senile cataract—lens partially dislocated. Left eye, central opacity of lens—incipient cataract. Wishing a sufficient mydriasis to examine the lenses satisfactorily, I instilled a four-grain solution of atropia several times with no effect. Then I tried duboisia sulphate—a one per cent. solution—two drops in each eye. In ten minutes there was free dilatation of iris. So I told him to walk into my private office to have the eyes examined. I noticed his reply was rather thick and indistinct, but I would have paid no further attention to this had he not staggered in walking. He complained of dizziness in a confused tone of voice, and asked for water. I gave it to him, seated him by my lamp, and examined his eyes with the ophthalmoscope. During the examination, his replies to my questions were rather wandering. When he attempted to go back to the reception-room, I was obliged to assist him, from his inability to stand alone. I placed him on a sofa and watched these symptoms. His articulation became thicker, he seemed to speak with great difficulty, his mind began to wander, his conversation was incoherent, he spoke to imaginary persons in the room, and asked me to have a large hole in the wall mended—pointing to an unbroken wall opposite to him. I called assistance and raised him to his feet, only to find he could not put one foot before the other. His hallucination and incoherency increased; he sank into a stupor, and finally vomited violently. These symptoms of mental aberration, etc., continued for three or four hours, when he was sufficiently recovered to be sent home with a servant. As I have not seen him since, I presume he was too alarmed to return.

Since then, one other case has exhibited the same symptoms in a less degree—with staggering, thickness of speech, etc., but no mental aberration.

Such cases show that duboisia is not entirely free from danger, as some writers have stated, and should be used with caution.

JABORANDI AND PilocARPIN IN EYE DISEASES.—As the use of jaborandi and its active principle, pilocarpin, in eye dis-

eases is of a comparative recent date, reports of cases where they have been of value are seldom unwelcome to the medical reader. The general action of these drugs is known to all medical men because of the very general test to which their absorbent and eliminative action has been subjected.

Without taking space, therefore, to dilate upon their physiological and therapeutical action, I will proceed to relate the following cases. (Some of these cases are from the record of the Richmond Eye, Ear and Throat Infirmary and Dispensary: some from my private case book):

CASE I.—WHITE ATROPHY OF OPTIC NERVES.—H. R., negro, 34 years of age, who had had syphilis several years before, came to the Dispensary August 11th, 1879. Sight had been failing for 12 months, dating from a violent pain in the head, followed by a species of epileptic spasm. These pains and spasms recurred frequently, until now they are of weekly or bi-weekly occurrence. Ophthalmoscope showed right optic nerve atrophied; left blanched. Diagnosis: Optic nerve atrophy from syphiloma. He has been under active mercurial and iodide of potassium treatment for some months, with little or no amelioration of nervous symptoms, and steady decrease of vision—now only $\frac{1}{200}$. Notwithstanding this statement of his, I ordered mercurial inunction and bichloride of mercury with potassium iodide internally, with counter-irritation behind the ears and to nape of neck. In October no change for the better. Stopped this treatment and substituted hypodermic injections of pilocarpin. Began with one-sixth grain, and gave one injection daily, increasing to one-half grain, and gave 21 injections in all.

Result: Spasms stopped entirely during injections. Vision improved, and is now $\frac{1}{200}$, several months afterwards.

CASE II.—WHITE ATROPHY.—R. P., merchant, aged 58, applied March 18th, 1880. Says sight has been failing four or five months. Never had syphilis. Health always good. Excessive smoker, and addicted to constant use of stimulants, sometimes to excess. Sees better in light—central scotoma. Vision—Right, quantitative perception of light; left, $\frac{2}{50}$. Optic nerve in right eye dead white; left eye, nerve pale only. Diagnosed white atrophy of right nerve and amblyopia of left eye, caused by tobacco and alcohol—this opinion being based on the symptoms, history and absence of all other assignable causes. I discovered later that he had consulted Dr. Knapp about his right eye before it went blind,

and he had expressed the same opinion. I ordered absolute abstinence from tobacco and stimulants, and gave strychnia sulphate internally. Saw patient professionally at intervals of several weeks, and at each visit his sight was worse than at the previous one. He always persisted in the statement that he had not touched tobacco or whiskey, but as I had passed him on the street several times, and each time saw a cigar in his mouth, and suspected him to be partially intoxicated, I took that statement for what it was worth. I told him of my encounters with him, and he renewed his promises of abstinence. I then resolved to try fluid extract of jaborandi. He began with one-drachm dose every night, and increased to two drachms. After two visits, at intervals of two weeks, I found his vision stationary—neither better nor worse. I began to have hopes of a change for the better; but at the third visit, after beginning the use of jaborandi, vision was again worse—only $\frac{5}{200}$ —and on investigation found he had returned to his old foe. Result in this case negative.

Probably in cases of tobacco amblyopia no remedy will prevent progressive atrophy unless there is absolute abstinence from the exciting cause.

CASE III.—COMMENCING OPTIC NERVE ATROPHY, DEAFNESS, ETC., FROM SYPHILIS.—M. S., negro, age 40, applied to Dispensary November 10th, 1879. Had chancre two years ago. Abscess of liver 18 months ago; was aspirated. Complaints of pain in left half of head all the time. Hearing very defective in left ear. Membrana tympani whitish and somewhat depressed; tinnitus aurium. Sense of smell gone. Has chronic tœtid coryza and post-pharyngeal catarrh. Voice is almost entirely gone. Speaks in labored whisper. *Laryngoscopic examination* shows ulceration of glosso-epiglottic fold and paralysis of the adductor muscle of left vocal cord, with redness of both cords, probably from efforts to speak and from coughing. *Vision* of left eye began to fail six months ago; now very bad. Optic disk whitish, but seems swollen and projecting forward; line of demarcation not sharp. *Diagnosis*: Intra-cranial syphiloma, causing impaired hearing, sight, smell and speech, and some difficulty of locomotion. *Treatment*: Internally, anti-syphilitic and tonic. Local treatment of nose and throat by mercurial, astringent and caustic solutions applied by Sass's spray apparatus or by brush, catheterization of Eustachian tube, electrization of vocal cord by means of the laryngeal electrode. Under this

treatment his nose and throat assumed their normal aspect; tinnitus aurium disappeared; voice improved slightly; sight and hearing very little. Tried fluid extract of jaborandi in drachm doses nightly, and in a few weeks his voice became almost normal; vocal cord came to the median line in phonation; the hearing improved; the optic nerve lost its white, staring appearance, and though still blanched, the vision is now $\frac{1}{40}$, and the man can walk without difficulty. How much of this result was attributable to the jaborandi, and how much to the treatment first instituted, I am not prepared to say.

CASE IV.—CHRONIC NEURO-RETINITIS.—J. F., age 30, laborer. History of syphilis. Blind in right eye several years; left eye defective two years. Vision—Right eye, quantitative perception of light; left, $\frac{1}{200}$. Ophthalmoscopic examination showed—right eye, vitreous too opaque to allow view of fundus oculi; left eye, vitreous clear, but swollen and reddened disk. Diagnosis: Syphilitic chronic neuro-retinitis. Has used quantities of mercury, iodide of potassium, and has been leeched on temples repeatedly. I put him on fluid extract of jaborandi internally, drachm doses, for weeks with no result. Vision remained *in statu quo*.

CASE V.—CHRONIC NEURO-RETINITIS.—M. D., merchant, age 63. Been suffering with his eyes many years; obscure history of specific taint; has had several attacks at long intervals of neuro-retinitis—probably of specific origin—with pain, decrease of vision, etc. He has been under the treatment of several distinguished oculists with invariable benefit until his last attack, two years ago, when his trouble assumed a chronic aspect, leaving vision permanently impaired. Zittman's decoction, Heurteloup's leech, and different prescriptions of mercury and iodide of potassium have been tried with little improvement. His vision, when I first saw him, September, 1879, was $\frac{5}{200}$. Optic nerve red and swollen, outline indistinct, vitreous filled with floating opacities. September 20th, gave hypodermically $\frac{1}{6}$ grain muriate of pilocarpin, which was followed in five minutes by profuse diaphoresis; no salivation or other manifestation of its effects.

On 21st, I gave $\frac{1}{4}$ grain; on 22d, $\frac{1}{3}$ grain; on 23d, $\frac{1}{2}$ grain, which, six hours later, after profuse sweating and copious salivation, caused headache, vomiting and violent pain in the abdomen and genitals, followed by general prostration for several days. I reduced the dose to $\frac{1}{3}$ grain hypodermically, which I continued once a day for ten days. At the end of that time, vitreous opacities absorbed, nerve outline

more distinct, and vision $\frac{2}{100}$. Since then there has been no marked improvement.

CASE VI.—HÆMORRHAGE INTO VITREOUS.—J. R. P., age 21, was struck in left eye by a rock three days before applying to the Dispensary. Cannot see with this eye. The sclerotic is injected; cornea and iris clear; no pain; no reflex with ophthalmoscope; interior of eye perfectly black. *Diagnosis*: Probably hæmorrhage into vitreous. Ordered fluid extract of jaborandi, one and a half teaspoonfuls, to be taken every night. This was July 1st, 1880. On July 3d, with ophthalmoscope, faint, pinkish reflex was detected at the upper edge of the pupil. On July 5th, vitreous perfectly clear; fundus distinctly visible, showing white patches in choroid and inflamed nerve. He complained of pain and intolerance of light, which passed away in a few days.

CASE VII.—CHOROIDITIS EXUDATIVA, WITH VITREOUS OPACITY.—Mr. T. S., 28 years old, engine driver. One eye lost by injury on railroad two and a half years ago. In February, 1878, he came to see me about his good eye—so blind that he could only count fingers at one foot. Examination revealed sympathetic serous irido-choroiditis. Enucleation of injured eye, and active treatment of the sympathetic trouble in the good eye by leeching, mercurialization, iodide of potassium, etc., with tonics, brought his vision back in six months to $\frac{2}{30}$, and reading No. 1 (Snellen); but in left eye were some large atrophied spots near the periphery of the choroid.

December, 1879, he returned with eye again nearly blind. Slight scleral injection; iris at cornea clear. Ophthalmoscope reveals vitreous filled with floating opacities, so much so that optic disk could not be made out. Vision only $\frac{8}{200}$. Artificial leech was applied to temples, and muriate of pilocarpin hypodermically, $\frac{1}{6}$ grain, followed in ten minutes by profuse diaphoresis and ptyalism with slight nausea; no pain or vomiting. I gave him one injection daily, increasing to gr. $\frac{1}{2}$, which made him weak, but did not nauseate. After seven injections vision became $\frac{2}{60}$. Fundus oculi indistinctly seen by ophthalmoscope. After the twelfth injection vision was $\frac{2}{60}$, and he can read Jæger No. 2. Vitreous clear and fundus distinctly visible; large peripheral white patches in choroid.

CASE VIII.—ULCER OF CORNEA—PUS IN ANTERIOR CHAMBER.—Mrs. S., large, stout woman, 36 years of age, applied for treatment October 24, 1879, for a large central ulceration of cornea, with blood and pus in the anterior chamber of left

eye. Used a one per cent. solution of sulphate of eserine locally, applied pressure bandage, and gave of muriate of pilocarpin gr. $\frac{1}{8}$ hypodermically. On 25th, injected same quantity; on 26th and 27th, gr. $\frac{1}{4}$; on 28th and 29th, gr. $\frac{1}{2}$; and on 30th and 31st, gr. $\frac{1}{2}$. Each injection was followed by the characteristic effects of the drug, and the large dose, gr. $\frac{1}{2}$, by vomiting. On October 31st, the anterior chamber was free from pus and blood, and the ulcer was seemingly healed. Continued injections until November 5th, when the eye was clear with exception of a scarcely appreciable cloud in cornea.

CASE IX.—VITREOUS OPACITY AND RETINAL DETACHMENT FROM CHOROIDO-RETINITIS SYPHILITICA.—Mrs. J., 33 years old, came to my office August 5th; been married eleven years, and was confined with her first child only nine months before I saw her. Child was carried to full term, but was born dead. One month after her confinement an eruption appeared all over her body, and her eye sight became defective. Ophthalmoscopic examination revealed densely clouded vitreous in both eyes, with appearances indicating retinal detachment in left eye. Diagnosis—Vitreous opacity and retinal detachment from choroido-retinitis syphilitica. In all probability the specific disease had been contracted from the fœtus which had died the victim of inherited syphilis. Notwithstanding energetic anti-syphilitic treatment by the family physician, during seven months her vision had gradually decreased, until when I saw her it amounted to—right, $\frac{1}{200}$; left, $\frac{2}{200}$. I continued the specific treatment, but added fluid extract of jaborandi in one-drachm doses, and in two weeks decided improvement showed itself in clearing up of vitreous, and the vision rose to $\frac{1}{80}$ right, and $\frac{1}{200}$ left eye.

CASE X.—MYOPIA CHOROIDITIS EXUDATIVA, WITH CLOUDY VITREOUS AND RETINAL DETACHMENT.—Miss S. C., 22 years of age, general health good, of studious habits, came to see me August 1st. She taught school last winter, and in addition to her duties in the school, she was in the habit of reading until late into the night, sometimes lying down, and often with poor light. She has always been near-sighted, which, however, seems to have increased of late years. Sometimes, after reading, had pains in eyes and forehead. About three months ago sight of right eye began to be cloudy and gradually grew worse. She shows evidences of inherited specific disease. Her family physician treated her internally with anti-syphilitic remedies and tonics, kept up a constant mild catharsis, and applied blisters to temples and behind ear, but vision did not improve. When I first saw

her, the *left eye* was normal in appearance, the *right* showed decided scleral and conjunctival injection. Tension of left eye normal; of right below normal. Ophthalmoscopic examination: *Left eye*, refracting media clear, retina normal, small posterior staphyloma, myopia of $\frac{1}{8}$ or 5 dioptries. *Right eye*, cornea slightly hazy in lower part, vitreous so filled with floating opacities as to shut off entirely a view of the fundus, and a peripheral detachment of retina. Vision was equal to counting fingers at two feet.

Applied artificial leech to temple, ordered hot pediluvia, mercurial inunction, and internally iron with bichloride of mercury, iodide of potassium. One week later no change. I then determined to try muriate of pilocarpin hypodermically. Gave her $\frac{1}{6}$ grain, which produced profuse salivation, slight diaphoresis and some nausea. After twenty-one injections, vision rose from counting fingers at two feet to reading No. 16 Jæger. Cornea was clear; fundus could be seen hazily through vitreous, and retinal protrusion was smaller. Case returned home continuing treatment prescribed.

The results in the above series of cases, though not all that we would wish, are yet, on the whole, satisfactory, and would seem to demonstrate the value of these remedies, more especially in eye troubles caused by or complicated with intra-ocular effusions.

410 E. Grace Street.

Clinical Reports.

Uterine Fibroids Cured by Pregnancy. By A. N. TALLEY, M. D.,
Ex-President South Carolina Medical Association; Formerly Professor of Practice of Medicine, University of South Carolina, etc., Columbia, S. C.

In May, 1875, I was requested by Dr. Atkisson, Acting Assistant Surgeon U. S. A., at his post, to visit in consultation with him a colored female patient who had sought his aid in consequence of an abdominal tumor which she had discovered some months before calling on him. The woman was 36 years of age, tall, thin, of light complexion, unmarried, and had borne no children. Menstruation had set in when she was 15 years old, and had continued normally till six months prior to the date of Dr. Atkisson's first visit, when it had ceased, and was superseded by an occasional pro-

fuse leucorrhœal discharge, which at no time, however, showed traces of blood. To the eye, the abdomen presented the appearance of a woman in the fifth month of pregnancy, but a manual examination detected a multiple tumor, consisting of four or five ovoid or irregularly spherical growths, varying in size from a walnut to that of a small orange. These growths moved only consentaneously with each other, and were evidently firmly imbedded in one common tissue. Digital examination showed the uterus to be elevated above the pelvic brim, and strongly anteverted, so that the os tinæ could, with extreme difficulty, be reached by the index finger. After a vain attempt to bring the uterine mouth into view by means of a Cusco speculum, recourse was had to Sims' speculum in the sinistro-lateral position, when, with the aid of a volsellum, partial command of the organ was had. A sound was now passed into the cavity to the depth of four and three-quarter inches, but failed to detect any notable irregularities of the internal surface. Rectal exploration shed no further light upon the nature of the case. Conjoined manipulation demonstrated that every movement of the growth involved a corresponding movement of the uterus, and, *vice versa*, any change of position in the latter occasioned a like change in the former. The larger tumors yielded obscure fluctuation—the smaller ones being dense and seemingly inelastic.

The diagnosis based upon these data was multiple extra-uterine, fibro-cystic tumor, and the opinion given was that inasmuch as the patient experienced, as yet, no great inconvenience, and was not disqualified for her household duties, no operative interference was warrantable. Meantime, Atlee's remedy, muriate of ammonia in doses of twenty grains three times daily, was advised, and the case kept under observation.

One month later, a further examination showed a perceptible increase in the size of the tumor, without, however, disturbance of the general health. At the date of this visit, the patient was, at my request, seen by several members of the profession, all of whom concurred in the diagnosis given. With instructions to continue the muriate of ammonia, and to advise me of any change in her condition or symptoms, I ceased my observation of the case for several months.

In October, being again requested to see her, I learned that she believed herself to be pregnant, basing this opinion upon frequent and unmistakable sensations of quickening. The abdomen was not larger than when I had last examined

it, though the character of the enlargement was evidently changing; and in lieu of the multiple growth which had at first constituted the entire bulk of the tumor, there were indications of a more general and uniform uterine development. By careful auscultation, I was enabled to detect the foetal heart sounds, and so to confirm her statement of pregnancy. Though not prepared by this visit for the result ultimately obtained, I expressed the hope that with the advance in gestation the tumor would be retarded in its growth.

I saw nothing more of the woman for several months, when, on the 27th of February of the following year, I was informed that labor had set in, and I was requested to see her. Being at the time unable to attend, I advised that the services of a competent midwife be procured, and promised to see her at the earliest practicable moment. Several hours had elapsed before my promise was fulfilled, when, on calling, I was informed that the labor had been safely terminated a short time before my arrival; that the presentation was natural; that no complication had arisen, and that the child was vigorous and well developed. The uterus was firmly contracted, and presented no trace of the original tumor.

Since that date I have made no further examination, but on casually encountering my patient some months after her confinement, I learned from her that there had been no reappearance of the growth.

I am fully aware that the above case is not unprecedented; nevertheless the infrequency of such terminations may render them worthy of record when they do present themselves.

The practical questions arising out of the history of this case are: First, What agency, if any, had the muriate of ammonia in bringing about the result? And second, Was the arrest of the growth and ultimate absorption of the tumor due to a diversion of nutrition, or to mechanical pressure? If to the latter, may not the therapeutics of this agent be invoked artificially in the treatment of uterine fibroids?

Ligation of the Subclavian Artery—Recovery. By JOHN A. MCKINNON, M. D., Selma, Ala.

John Anderson, aged twenty-one years, colored, a laborer on the Selma, Rome and Dalton railroad, on the 4th of

March last was shot with a Colt's navy pistol. The ball, weighing half ounce, entered underneath and a little internal to the middle of the left clavicle, was flattened by the lower border of the clavicle; it passed through the shoulder, emerging just above the spine of the scapula, near the triangular smooth surface over which the trapezius muscle glides, where it was found just underneath the skin, from which place I removed it four hours after the wound was received. When the incision was made, on reaching the ball, a few bubbles of air escaped. There was not at any time hæmoptysis nor interference with respiration on this side since the wound was inflicted. The hæmorrhage from the wound of entrance had been so great that when I saw the patient he was almost moribund, pulseless, tongue bloodless, great thirst and very restless; an anxious countenance.

By the cautious use of anodynes, stimulants and nourishment, on the third day his pulse and general condition was very much improved. This continued until the seventh day, when a pouting out of the wound where the ball entered was quickly recognized. By palpation and auscultation, I discovered the characteristic signs of a traumatic aneurism, viz., a pulsating tumor with a thrill synchronous with the heart's action. This prominence increased so that within a week from the time the tumor was first discovered, its summit was three-fourths of an inch higher than the surrounding skin, and it extended underneath the clavicle at least one and a half inches.

There has never been any brachial or radial pulse on this side since the accident. The hand and arm, at the time the aneurism was discovered, was becoming œdematous, and the paralysis was gradually increasing. After consulting with my friend, Dr. Riggs, I concluded to ligate the subclavian artery as the best chance to save my patient's limb and life.

On *March* 20th, assisted by Drs. Riggs, Clarke and Johnson, after the administration of chloroform, an incision was made half an inch above and parallel to the clavicle, four inches long, through the skin, platysma myoides muscle, ligating, with a double ligature, the external jugular vein; then, cutting it, the dissection was cautiously carried on, *secundem artem*, until the scalenus anticus was reached. This muscle was followed down to its insertion; here we had much trouble on account of its weak pulsation. The pathological changes that had taken place incident to the primary wound (namely, the enlargement of the vessels carrying on the collateral circulation) and the great congestion of all the

parts, caused a profuse hæmorrhage considering the anæmic condition of our patient from his previous bleeding. The dissection was deep, owing to the anatomical conformation of the man. He was long boned: then the brachial plexus of nerves completely overlapped the artery which was underneath this plexus. These circumstances caused the operation to be extended over two hours. When the ligature was passed around the artery, external to the scalenus anticus (third part of its course), and tightened, the pulsation in the aneurism at once ceased, and from this time the tumor gradually decreased, except at the time of a secondary hæmorrhage, on the sixth day after the operation, when pulsation again slightly appeared. After all oozing had subsided, the wound was closed by interrupted silk sutures, and a clean sponge, saturated with carbolized water (one to forty parts), fastened with adhesive strips, was used as a compress and as an absorbent over it.

On the second day after the operation, the wound was suppurating profusely. I removed the sponge and substituted absorbent cotton. This was renewed every few hours—all the time using the carbolized water as a disinfectant.

The patient's general condition improved up to the first of April, when a profuse secondary hæmorrhage took place, which caused him to be very much in the same condition he was when first seen after receiving the shot.

There was no radial pulse on the right side, and from every indication, it seemed as if he was verging on that "bourne from whence no traveller e'er returns." Anticipating a secondary hæmorrhage, I had prepared a bag of shot to be used as a compress, should this accident occur.

The bag was made after the form and shape of a United States mail bag, making the bottom very much larger in proportion to its length; the bag was large enough to hold the shot loosely. I used quilt lining in its construction for reasons afterwards to be explained. In the bag I put two and a half pounds of shot.

As soon as possible after reaching my patient, who was nearly dead from loss of blood, the wound was opened, clots removed; a free arterial flow was seen: a strip of adhesive plaster was so applied as to approximate the edges of the wound; and the bag of shot, dipped in the carbolized water, was placed over the incised and pistol-shot wound—the aneurism pulsation being feebly felt. The hæmorrhage was at once arrested. After twenty-four hours, he complained so much of the weight that I emptied out about one-half of the

shot, when I replaced it. This remained on for forty-eight hours, when it was permanently removed.

The wound at once took on healthy action; the suppuration was very much diminished in quantity, and nothing more was done, except that the absorbent cotton was kept wet with carbolized oil, consisting of two drachms of carbolic acid to six ounces of the best olive oil.

The only subsequent trouble was the removal of the ligature, which remained until May 14th.

I devised an elastic bandage, attached to the fore end of the ligature, which was, after as much tension as could be borne, secured with adhesive plaster over the shoulder. This, after about a week, caused the ligature to cut through the artery and become detached. Nourishments and opiates were assiduously attended to. The patient's convalescence is now (May 19th) complete, except a partial paralysis of the arm, which is gradually improving; and he will, if nothing unforeseen occurs, assume his usual avocation in a few weeks.

Remarks.—The points of interest in this case to which I call the attention of the profession are, first, the bag of shot as a compress. Its convenience of application, its complete adjustment to all the inequalities, exercising an equable pressure on all the parts to which it is applied, the easy regulation of the pressure by decreasing or increasing the amount of shot, and in this suppurating wound, the facility and ease with which it is cleaned, are all worthy of consideration.

Secondly, the quilt lining is commendable from the fact of its large, open meshes, which allow the free ingress and egress of the secretion from the wound; and, on the same account, the cleansing of the shot by merely dipping the bag in carbolized water repeatedly in quick succession. The soft texture of this material is better than the mosquito netting, or any other corded substance, as it is not so liable to excoriate the skin.

The next point of interest is the removal of the long retained ligature; the rubber elastic is easily procured and applied, and its work is gradually but effectually done.

Correspondence.

Remittent Fever of Puerperal Women (of Manson) or Malarial Puerperal Fever (of Barker)—Who Discovered It?

Mr. Editor,—At the time of our reading and reviewing Dr. Fordyce Barker's paper upon the above-mentioned subject, we had lost sight of the fact that it is not, as was claimed by him, a newly-discovered subject, and one "not, as yet, adopted by the scientific world in the nomenclature of diseases." On the contrary, we feel it incumbent upon us to call his attention to a publication upon the subject which antedates his by about twenty-five years. In doing this, we would be distinctly understood as wishing only to call attention to an act of injustice on his part, probably through an oversight, without the slightest accusation of plagiarism. It is our duty and pleasure to claim priority in this discovery for Prof. Otis F. Manson, now of Richmond, Va., whose researches in the important field of malaria we are glad to see are becoming better understood and better appreciated every year. To substantiate the claims of Dr. Manson, it is only necessary to republish an extract from a communication by him to the *Virginia Medical and Surgical Journal*, January, 1855, Vol. IV, page 6. At the same time, we would beg leave to call attention to the striking analogy between the description of this disease published by Dr. Manson in 1855, and that by Dr. Barker in 1880. Under the head of "Remittent Fever of Puerperal Women," Dr. Manson remarks:

"We desire to call the special attention of the young practitioner to the peculiar phenomena presented in this fever when occurring in females soon after *accouchement*. It may be regarded as an etiological axiom, that whatever tends to prostrate the nervous or deplete the vascular systems, renders the organism strongly predisposed to endemic or epidemic influences. In puerperal women, both of these conditions unfortunately exist, and it is not, therefore, surprising that they should be often attacked with this affection. The patient is generally seized with a chill, which may be mistaken for the usual rigor after parturition, or that introductory to the febris lactea. This is soon, however, followed by an unusual, intense and prolonged reaction. The secretion of

milk, if existing, is arrested, and the lochial discharge is partially or completely suspended. Intense dorsal and abdominal pains are experienced, and the uterus becomes evidently enlarged, rising above the pubis, and very tender on pressure. As the exacerbation declines, the suffering abates, and the lochia may partially re-appear in the remission, which is usually quite evident. Close observation will soon thereafter detect the coolness of the extreme parts antecedent to a second paroxysm, which is attended with augmented spinal and abdominal pain and tenderness. Increase of the uterine tumor ensues, the abdomen becomes tympanitic, and will not bear the slightest pressure. The tongue becomes red, or red on its edges, and brown or black in its centre. Obstinate vomiting ensues; colliquative diarrhoea sets in, and coma or convulsions close the scene. It is clearly evident, from these symptoms, that this complication may be mistaken for puerperal fever. As far as the local symptoms and functional disturbances are concerned, the analogy is very evident, with this important distinction, however, that the local symptoms and the lesions of which they are the exponents, are the consequence and not the cause of the febrile disturbance. The paroxysmal character of the case, as shown by the marked remissions and exacerbations of fever, the regular increase and abatement, *pari passu*, of the local symptoms, and the phenomena pertaining to the stage of congestion, will generally enable the observant physician to lift the mask from the features of the case, and to discern its distinctive character. Discomfiture to himself and death to his patient will probably result, if, erring in discrimination, he resorts to the usual antiphlogistic treatment of puerperal peritonitis; whilst, on the other hand, by the adoption of the proper means, the disease may be generally arrested. Concerning no disease, perhaps, are more antagonistic views promulgated than in regard to the nature and treatment of puerperal fever. In the opinion of the writer, these discrepancies can only be explained by the fact that, although the disease, as it presents itself to different observers, is similar in its general features; yet, owing to epidemic influence, and, in some instances, a specific contagious miasm, it differs widely in its symptoms and causes, and requires as equally different modes of treatment."

It is worthy of note that in this paper Dr. Manson concisely describes the varieties of remittent fever observed in his sphere of practice—all of which may, of course, attack the

patient in child-bed—and that he lays down a bold system of treatment, the main feature of which was the employment of large doses of quinine to cut short the disease in all its stages—due regard being observed to the removal of the local lesions by appropriate treatment.

Incidentally, we wish to note that Dr. Manson, in the same article, described *typho-malarial fever* under the term *adynamic remittent fever*.

Very respectfully,

HUGH M. TAYLOR, M. D.

Richmond, Va., Sept. 3d, 1880.

Country Practice and Country Practitioners.

Mr. Editor,—The theme is a necessity of the times. The war demoralized the people generally. The nice distinctions of moral principles before the sanguinary deluge have been swept away, and selfishness is the leading apparent principle governing men individually and collectively. During the war, the home practitioners of medicine attended to large areas of surface, and spent all day and a portion of the night, in all seasons and in all weathers, attending to the calls of humanity. The *ante bellum* debts were settled generally in depreciated currency, and the families of volunteers in the army were attended either gratuitously, or at rates far below the cost of medicines, forage and personal expenses generally. Very few of these bills were ever paid, and after the war, the impoverishment of the people prevented forced settlements of old or new accounts. During these several years, sickness and medical bills increased *pari passu*, and to this day, thousands of dollars of unpaid bills are held by practitioners or their families. The medical faculty generally have continued their practice among large numbers of families, who ought to have settled them; but by a false spirit of philanthropy, the families of physicians have been gradually settling down like water-logged vessels—overwhelmed in financial bankruptcy. The recipients of their misplaced and misdirected charity have refused generally to pay anything, and country medical practitioners of medicine have descended into comparative poverty and insignificance. A late practitioner of

my acquaintance, of 45 years' practice, left thousands of dollars of worthless accounts to his bankrupt estate and his pauper children and grandchildren; and the benefactors of his loss care no more about these unsettled and unwritten obligations, than if gratitude and honesty and honor were nothing but empty names. Another large practitioner, of 30 years' practice, died without means to purchase his coffin; and a large proportion of the physicians of Hanover Co., Va., are to this day miserable paupers, having no means to purchase the necessaries and comforts of life, and the surviving doctors themselves are unable to obtain decent clothes, medical journals, instruments, and even licenses. Many of them have but a miserable *rossinante* to attend to these daily calls, and very few of them have a vehicle either for themselves or for their families.

On the contrary, around them are men without education or general knowledge, staying at home, attending to their farms and accumulating property. The country physicians of the present day have burdens that the city doctors know nothing of. Their fees are the same as during the past 100 years, and their losses are far greater each succeeding year, till necessity, that knows no law and no inclination, has driven them and are driving them out of the regular practice. A most intelligent physician informed me that his practice did not feed his two horses and his family, and he could keep four horses busy if his services were paid for. Another intelligent physician has informed me that his practice consumed all his time, and paid little or nothing, and he was compelled to seek some other calling. This is the general result of country practice since the war.

Tempora mutantur et nos mutamur in illis; and the result of this saying is wofully visible in the seedy, care-worn and broken-down county physician. The people have been so absorbed in their own business as to overlook the fact that medical accounts are really payable debts. They have looked upon them as half gratuitous and charitable, and if by any unforeseen and unexpected chance, they can pay all their other bills, the doctor's bills may be settled. Many of them refuse either to pay bills, or give their written obligation for

themselves or their families. The natural ties of family affection are wanting when medical accounts are presented. Fathers will not pay for their sons or their sisters, and some will pay nothing for their fathers, and if the law is involved, the homestead of \$2,000, and the poor debtors' law of \$500, offsets nearly all debts. Promises to pay are continued from year to year, until the accounts reach over a hundred dollars, and then some other physician is employed, and the same deceptive means to obtain medical services, without the least desire to pay, is continued. An exchange of accounts with an adjoining medical practitioner, showed that two-thirds of a long list of persons owed both of us, and doubtless other physicians were also gullible victims of continued deception. Formerly, men would pay their medical bills, but now they rarely do. And as Walpole said in his day, every man has his price. Some will pay five dollars and some one; some ten, some twenty; and if the accounts are considered heavy, they will pay nothing. It matters not whether the persons are professors of religion or not, or what standing they may have in their respective churches—religion is one thing and payment of debts another. From a long list of unpaid bills, I see no difference between the religious and the irreligious portion of the community. A leading so-called religious man caused me several hundred miles of riding to attend several members of his family with bilious fever. When too late, I found that he had never paid bills which the law did not compel. I asked him if he ever paid a bill in his long life time, and he replied that I ought not to insult him by such a question. Were such wretches compelled to spend sixty days in a jail, there would be fewer cases of the kind.

In regard to negro practice, I find it worth little or nothing. Very few will pay an account of five dollars, and though very religious in their way, so far as emotion is concerned, the moral principles of veracity, honor and honesty are more "honored in the breach than in the observance." Without a guarantee on the part of the employer, medical services are seldom paid, and this brings me to the important question—

Does the medical faculty of the State expect to obtain

either wealth, honor, or even a meagre support by continuing as they have done for fifteen years, in gratuitous practice, without any guarantee by a promise to pay, which is seldom kept? The county physicians owe it to themselves, and to their needy and helpless wives and children, to unite in stronger bonds of union among themselves. They ought to know that the gain of new families to their practice does not necessarily increase their receipts or their reputation; and they should have more stringent regulations among themselves. A paper showing a settlement with their former physician should be insisted on whenever sent for, and this strictly enforced. Just so long as the credit system is carried out some security is necessary, and some limit to the size of the bill should be made, and an obligation given; and when the obligation as well as the money is refused, a notice of the same should be immediately given to the adjoining physicians. Without this, the same old routine of unpaid practice will continue. People must be made to know that physicians' bills are debts like food, clothes and other necessary expenses.

The laws of the State should be amended to further the payment of all debts. Under the present Underwood Constitution a laborer can refuse to pay a debt of five dollars; and yet, his money in the hands of his employer, cannot be garnisheed unless it exceeds fifty dollars. In some few cases, medical and legal services have been called laborers' wages, and the debts collected; but generally, professional services are not considered as laborers' wages. This unjust law should be expunged from the statute book.

Then, again, the fees of the medical profession should be uniform in all the counties, and not made to vary, as they often do, by practitioners of different counties. In Hanover county, the placenta delivery fee is ten dollars, while in the adjoining county of Henrico, the same obstetrical fee is twenty dollars, which should be the same in Hanover, as there is often more trouble than attending the case from the beginning. In some counties the obstetrical fee is ten dollars for each case, and *no extra* visits; while in other counties the fee is twenty dollars, with one month's attendance.

By the latter charge, persons who do not need a month's attention pay for those who do need it, and the size of the fee throws the business in the hands of the midwives. The State Societies should establish *universal* regulations for all county practitioners—advisory if not compulsory—and a strict adherence to these regulations would lead to some improvement in the feelings and comforts of the present unfortunate class of country doctors.

C. R. CULLEN, M. D.

Hanover Co., Va., September 1, 1880.

[The above letter contains several suggestions worthy of careful consideration by every community of physicians.—ED.]

Modification of Operation of Circumcision Suggested.

Mr. Editor,—About twelve or eighteen months ago I circumcised a child, æt. 3½ years, for reflex paralysis (partial) of the lower extremities, and report the case more to make a suggestion as to the operation, than because of anything of special interest in the case itself.

The patient is now doing very well, and though there is a perceptible awkwardness in his gait, still it is pretty fair and improving steadily.

My suggestion is this: that before attempting to *remove* the excess of prepuce, it would be better to *split* it back to the point at which the circular incision is to commence, that a more convenient and perfect separation of the mucous membranes of the prepuce and glans may be effected, while the operator can take hold of the redundancy to expedite the matter. After this, the operator may make the incision, and the incision in the skin will correspond more exactly with that in the mucous membrane, and the annoying retraction of former (skin) will be avoided, and the stitching of skin to mucous membrane may be more readily done and better adjusted.

Respectfully,

J. MICHAUX, M. D.

Cedar Point Landing, Va., Aug. 30, 1880.

Original Translations.

From the German and French. By WILLIAM C. DABNEY,
M. D., Charlottesville, Va.

Administration of Ergotine by the Rectum.—Dr. Paul Liebrecht (in *Lüttich Rundschau*, July, 1880) gives Dr. Robert Bell the credit of advising this mode of administration of ergot first, though it had certainly been in use for some time prior to the publication of Dr. Bell's paper in the *Lancet* for March 15th, 1879. Bell described four cases thus treated, one of which was a uterine polypus, which was discharged after the treatment had been continued for three weeks.

Liebrecht states that he never injects ergotine subcutaneously now, but always gives it in the form of a suppository. The uterine affections in which he has found it advantageous, are fibroid tumors, menorrhagia, metrorrhagia, *post.partum* hæmorrhages, and, finally, chronic metritis and endometritis.

The dose of ergotine used by Liebrecht is $2\frac{3}{4}$ grains, made into a suppository with cocoa butter and vaseline.

With respect to the administration of ergot by the mouth, Dr. Liebrecht calls attention to the fact, which is very generally recognized, that many persons tolerate ergot very badly when given by the mouth; indeed, some persons cannot take it at all on account of the intense nausea it produces, and very few are able to continue it as long as is necessary for chronic uterine disturbances.

When given in the form of suppository, it is, of course, free from this objection, and the administration is painless, which cannot be said of its hypodermic use. A further advantage is, that the patient can use the medicine without assistance, and it can be continued as long as necessary.

Ordinarily, the action of ergot given in this way is sufficiently energetic and rapid in its action; but there are cases in which it is given to arrest hæmorrhage, especially after labor, in which its subcutaneous use is much to be preferred on account of the rapidity of its action. The pain caused by the injection increases the contractions of the uterus in these cases. Dr. Liebrecht cites the case of a woman suffering with chronic metritis, however, in whom contractions of the uterus were caused a few moments after a suppository of ergotine was inserted. He expresses a decided

preference for dialyzed ergotine, but its expense is an objection to its use in many cases. When this cannot be had, he used the extract made by Bonjean or Wernich.

[In this country Squibb's solid extract is a very reliable preparation, and is very generally used.]

Dr. Liebrecht reports four cases of uterine fibroid in which the treatment with ergot was employed. His results were not nearly so satisfactory as those obtained by Hildebrandt and others. In the first of the four cases there was a fibroid as large as a child's head. Fifty-six injections were made in the course of five months without any results of consequence. In the second case, there was a large interstitial fibroid which had led to ulceration of the mucous membrane and considerable hæmorrhage. Eighty injections were made in the course of three months without any effect on the size of the tumor or on the hæmorrhage. The third case was also one of interstitial fibroid of the size of the pregnant uterus at full term; there was also arthritis deformans of all the larger joints of the lower extremities. One hundred and fifty-four injections were made. After the treatment had been continued for about five months, the tumor had diminished to about two-fifths of its original size. In spite of the continuance of the treatment twice a week for four years, there was no further diminution in size. There were no symptoms of ergotine in the patient.

Hildebrandt observed such symptoms once after only six injections of ergot had been made, and in another case after the remedy had been used one hundred and ninety-five times.

In the fourth of Liebrecht's cases the results were brilliant. In this instance there was a very large fibroid which compressed the rectum. A series of forty injections was made, which caused a decided diminution in the size of the tumor, and considerable improvement in the general condition. After an interval of six weeks, twelve more injections were made. There was rapid improvement. After a year's time, the tumor again showed signs of development, and the suppositories were again resorted to. A year after this time, only a trace of the tumor was discoverable on bi-manual palpation.

[The administration of ergot by suppository is not a recent thing, but it does not seem to have received the attention which it deserved. In the July (1879) number of the *American Journal of Medical Sciences*, the writer published a paper on the "Topical Uses of Ergot," in which a case of

chronic metritis with very great enlargement was detailed, which was cured by suppositories of ergot.—W. C. D.]

Ozæna Cured by Iodoform.—Dr. George Letzel (*Allgem. Med. Central. Zeitung*, June 5th, 1880) was induced to use iodoform in ozæna by the favorable results which followed its use in otorrhœa. He uses a powder consisting of 2 parts of iodoform and 10 parts of pulverized gum arabic. This is used as a snuff, being drawn into the nostrils from three to six times a day. In the six cases treated by this method the results were exceedingly favorable. Two cases, which had lasted for months, and in which every means which could be thought of had been tried without any benefit, were completely cured within ten or fourteen days. The other four cases, which were less severe, were cured in from six to eight days. Before using the powder, Dr. Letzel cleanses the nose as thoroughly as possible with the nasal douche, and removes all scabs by means of the ear-scoop, so as to allow the powder to come directly in contact with the mucous membrane.

With reference to the unpleasant smell of the iodoform, he says that it is, at least, less disagreeable than the odor caused by the ozæna itself.

[This treatment commends itself for its simplicity; but it should be mentioned in using the nasal douche that Dr. Roosa, of New York, and others have found that, unless very great precautions are observed, it is liable to lead to deafness. Dr. Lennox Brown, who is attached to a hospital where both throat and nasal and ear diseases are treated, states that he has frequently observed this result. Browne on *Diseases of the Throat*, pp. 65 and 166.—W. C. D.]

A New Mode of Treating Cholera Infantum —On the 26th of June last a paper on this subject appeared in the *Allgemein Medicin Centralblatt Zeitung*, which has attracted a great deal of attention, and which has been reproduced in whole or in part in very many of the German and French medical periodicals. The paper was written by Dr. Boing, of Urdingen-on-the-Rhine, and the treatment seems to have been original with him, though it was not entirely new—a paper on the subject by Barth having appeared in the *Gazette des Hopitaux*, of October 13th, 1866, and (virtually) the same treatment having been recommended by Dr. Otis F. Manson, of Richmond, Va., in a clinical lecture published in the *Virginia Medical Monthly* for August, 1875, in which Dr. Manson states he had been in the habit of considering cholera infantum a form of pernicious fever, and had treated it accordingly for years.

Dr. Boing states in his paper that he employed the mode of treatment which he recommends in an epidemic occurring in 1879, "with the result of curing easily and rapidly all cases, even the most severe." The method of treatment consists in the administration of quinine in quite large quantity, in small doses frequently repeated; in the reduction of the nourishment to equal parts of milk and water—each of which has been previously boiled—and in the administration of large quantities of wine, and even of ether. The number of cases thus treated amounted to fifty—the ages of the patients ranging from two months to four years. Of the children under a year old, some were nourished exclusively at the breast, others were nourished artificially—either in whole or in part.

In very young infants, one gramme (15 grains) of quinine was given in twenty-four hours—the amount being divided and given every half hour or hour. To children aged from five to ten months, $1\frac{1}{2}$ gramme (18 grains) to $1\frac{1}{2}$ grammes ($22\frac{1}{2}$ grains) were given in twenty-four hours in divided doses. To children aged between ten months and four years, $1\frac{1}{2}$ to 2 grammes were given. When the dejections or vomited matters were very acid, prepared chalk was given as long as the urine remained acid. As soon as the urine became alkaline, the chalk was suspended, as it was then liable to increase the vomiting. The vehicle used in the administration consisted of equal parts of mucilage of gum arabic, syrup of chamomile and distilled water.

In very few instances did the milk, when mixed with equal parts of water, seem to disagree, and in no case was it necessary to stop its administration. When rejected at first it was very soon retained, and it did not increase the alvine discharges. Tokay wine was given in small quantities frequently repeated, and one case is mentioned in which a little girl three years old took half a litre (about $\frac{7}{8}$ pint) in fifteen hours. In practise among the poor, the wine was replaced by acetic ether, which is preferable to sulphuric on account of the unpleasant taste of the latter. There was no difficulty in administering the drug, and symptoms of intoxication were never observed. When it was impossible for the ether to be retained, it was administered hypodermically at short intervals. In no case were astringents or opium resorted to; nor were cold or cutaneous revulsives employed. Carbolic acid, creasote and calomel had met with similar neglect at his hands.

Dr. Boing states that in every case, first the vomiting and

then the diarrhœa has been checked and controlled by this treatment. If the quinine cannot be given by the mouth, it is administered in double quantity per enema, or in smaller quantity by hypodermic injection. When the thirst is very severe, the little patients are permitted to drink boiled water containing 3 per cent. of salicylic acid.

The old treatment, Dr. Boing says, he was forced to abandon because its results were "intolerable," and under it 50 to 80, or even 90 per cent., died.

[Dr. Manson's mode of treatment differs somewhat from that of Boing, but both place their chief reliance on quinine. Dr. Manson, however, gives calomel and uses counter-irritation—neither of which are approved by Boing. Dr. Manson makes a further recommendation which deserves careful consideration; he says if there is time it is much better to give quinine in the late hours of the night. It is much more readily retained then, and acts more energetically.—W. C. D.]

The Physiological Action of Bromide of Ethyl in Hysteria and Epilepsy.—At the meeting of the Société de Biologie, on July 31st, 1880, MM. Bourneville and d'Olier presented a paper on this subject. Their observations were divided into three groups:

1. *Its action during attacks of hysteria.* The remedy was repeatedly administered during hysterical paroxysms to five hysterical patients at Bicêtre, and to some patients at La Salpêtrière. There was almost always an immediate cessation of the convulsive phenomena. In two patients the disorderly movements passed off rapidly and were followed by delirium.

2. *During epileptiform attacks.* In three cases the inhalation of bromide of ethyl, commenced in the tonic stage, produced, in a few seconds, complete muscular relaxation; in other cases, the duration and intensity of the convulsions were diminished, while in a third series it had no appreciable effect.

3. *Its effect on the epileptic attacks when given in the interval.* Ten epileptics, of whom five were adults and five children, were subjected during two months to a daily inhalation of bromide of ethyl pushed to the point of anæsthesia, which was occasionally kept up for twenty minutes. Of these, five had a decided diminution in the number of attacks during the first month of treatment—the diminution in number ranging between 4 and 41. There was a further diminution in the second month of treatment. There was neither sugar nor albumen in the urine after the ethyl inhalations, and the

nutrition did not seem to suffer in the least; five of the patients, indeed, showed an increase in weight after the treatment.

From Spanish and French. By CHAS. R. CULLEN, M. D. (P. O. Richmond, Va.), Henrico Co., Va.

Metritis.—Dr. Courtz, of Montpelier, France, says this disease may be either acute, subacute or chronic, according to the extent of the inflammation of the uterus. It may be spontaneous or traumatic, according to conditions of weather, or rheumatic, or catarrhal, or diphtheritic, or during or after the puerperal state. It terminates by leucorrhœa, suppuration, ulceration or gangrene, or by softening, or induration by hypertrophy; and each case shows the amount of the organ involved. The inflammation may be mucous or muscular, and resides in the epithelium or glands. When the secretion is acting, it is called leucorrhœa; and the ulceration may extend even backwards to the base of the broad ligament. It then becomes venous congestive endometritis—incurable, or extremely difficult to cure, and often resulting in hæmorrhages. Suppurative phlebitis is a grave result. The cellular system, the mucous, skin and the fusiform bodies become also affected, and the whole organ becomes more or less diseased.—*Revista Medica*, Buenos Aires, No. 23.

Woman's Insane Asylum, Buenos Aires—1848 to 1875 Statistics.—Single, 861; married, 782; widows, 349; not specified, 78—total, 2,070. The unmarried excel in numbers, as in other countries, chiefly from dissipation of different kinds, including sports of all kinds, fandangoes, balls, theatres—all over-exciting the mind, and producing derangement. Among the married are chiefly conjugal unhappiness from marriages of convenience, for money, family, rank, etc. Among many causes are the hardships and suffering of children, particularly the illegitimate offspring, destitute alike of all education, morally and mentally. A chief cause is religious fanaticism. The Argentine loose woman is especially religious, and surrounds herself with images, rosaries, etc., and frequently invokes the aid of the Virgin and of any saint who could help her in her licentious life. Civilization and proper education would lessen the effects of fanaticism. In proportion to population, the insanity in the male asylum is greater relatively as follows: Among the Irish, Spanish, Argentines, French and Italians; and in regard to races, similar to other countries, whites, 1,555; mulattos, 348; negroes,

172. In regard to occupations, in 4,121 cases nearly half were day laborers, one-fourth merchants, and the remainder of all other occupations.—*Ibid*, 24.

Effect of Cold Water.—Dr. Lapin furnished the result of experiments in the use of cold water, locally, per rectum and to the bowels, in cases of fever, and without fever in all cases reducing the pulse and temperature of the body. Water applied in the axilla reduced the temperature for thirty minutes. Applied to the epigastrium one hour, and by enema one hour and thirty minutes, and the colder the water the longer the period of time; besides, this acts as a tonic to the system.—*El Siglo Medico*.

New and Rational Treatment of Diffuse Inflammation.—Dr. Verneuil reports the first case, treated by 17 incisions, 12 to 14 centimetres in length, resulting in a speedy cure—taking particular care not to use the remedy in diabetics, nor on persons with broken-down constitutions.—*Ibid*.

Treatment of Puerperal Convulsions.—Dr. Hubbards prescribes as follows: (1) Phlebotomy if the head and face are congested, if the convulsions are chronic, and if hæmorrhage during labor has been severe. (2) Infusion of digitalis to tone the heart, to moderate the nervous excitement, and to produce diuresis in conjunction with bitartrate of potash. (3) Chloroform moderately. (4) Chloral is preferred; average dose, 15 grains. (5) If the loss of blood has been considerable and the prostration great, morphia injections are to be preferred, since chloral and chloroform will increase the tendency to hæmorrhage.—*Ibid*.

Cystitis of Pregnant Women.—Dr. Terrillon has called the attention of the Surgical Society of Paris to the particular form of cystitis which commences two to three months before labor, and is known by frequent desires to urinate, with heat and burning, and increased by walking or riding. Examination of the genitals show no vaginitis nor urethritis, and only when the introduction of the sound reaches the neck of the bladder is the pain increased. The night urine is ammoniacal and turbid, and very adhesive to the vessel, and examined with the microscope indicated pus. Whatever may be the cause of these symptoms, no available remedy suggests itself, though the condition is probably due to a varicose dilatation of the mucous membrane of the neck of the bladder.—*Gaceta de Medica Cataluna*.

Cancer Remedies.—Dr. Laurence has tried different drugs to palliate the pains of cancer. He gave every hour 15 grains of ergot of rye, which lessens the pains materially—

probably acting by lessening the flow of blood. Hydrate of croton chloral is equally good in the pains of uterine cancer, which likewise calms the pains in the limbs and muscles. As a local remedy, he prefers phenic acid. Through a speculum, he applies it with a cotton swab, and morning and evening he applies it mixed with glycerine. He finds that small plasters of morphine applied over the kidneys have likewise a soothing influence.—*La Coronica Medica*.

Ergot for Prolapse of the Rectum.—Dr. E. Vidal has effected complete cure of prolapse of the rectum by hypodermic injections of ergot. One case had existed eight years, another over two years, and three had hæmorrhage as a complication. With each injection, there was severe pain and tenesmus—sometimes lasting several hours.

Bromide of Potassium for Dentition, etc.—Potassium bromide has been successfully used locally by Peyraud in the dentition of children, as in the following prescription: Bromide of potassium, 15 to 30 grains; honey, 1 gill, and a little water to dissolve the bromide. A little alcohol is added to preserve the mixture. It is used by friction several times a day; and if the bowels are disordered, a few drops of Sydenham's laudanum are added. It acts by lessening the nervous symptoms, and as a local anæsthesia. No matter how it acts, it calms the whole body and the cases improve.

The same author employs it also locally in toothache, filling the diseased cavity and covering with cotton. In twenty minutes the pain ceases. This substance ought certainly to supersede the use of arsenical preparations in the dental arts.

In a case of caries of the metatarsal bone, he injected bromide of potassium and glycerine with a successful result after injections of arnica and other drugs had been vainly tried. In diphtheria and diseases of the nasal fossæ, it has been used also with good results.—*Revista de Medicina*, Madrid.

Vienna Hospitals.—Dr. Schener writes to the May number of the *Revista* (Buenos Aires) that Vienna General Hospital contains 2,000 beds. The medical staff consists of 20 ordinary professors, 22 extraordinary, 53 teachers and 12 assistants. Every day (Saturday and Sunday excepted) Bamberger and Duchenne deliver their efficient clinics; Bilothe and Von Dunreicher their surgical clinics, following Lister's antiseptic method in all their operations; Carlos Brauer Von Fernwald and Joseph Spatt gynæcological lectures. During the year, there are 3,000 labor cases in the institution with clinics on the different puerperal diseases. Prof. Stork lec-

tures on rhinoscopy and laryngoscopy; Politzer on diseases of the ear; Jæger on diseases of the eye; Benedict on neuropathology and electro-therapathy; Bandl on diseases of children.

In the treatment of the stomach and bowel diseases, a rubber ciphon tube is introduced, and the contents evacuated until empty. Persons treated in this way improve very fast, and often return for similar treatment. This treatment is curative in many affections, particularly in idiopathic dilata-tions, and *palliative* in organic affections.

Prof. Ausfits interested me in the practical utility of endoscopy, or urethroscopia. He uses a single tube with conductor and reflector separate, which serves, at the same time, as a topical medication. One easily sees from the prostatic portion to the navicular fossa, and can thus examine the disease locally.

I have seen the electric endoscope, made by the celebrated Leiler, of Vienna, applied in rhinoscopy and laryngoscopy.

Salicylate of Lime.—Senor Rodriquez Vigoreus published the virtues of this medicine in the treatment of chancres—which are first washed with clean water and then with dosils of lint steeped in a solution of this medicine. The cases treated show that in a week the cure is nearly effected, many of which had been treated without success by iodine, phenic acid and other drugs. The worst cases were completely cured in 30 days.—*Gaceta Medica de Cataluna*.

The Marriage Age In Different Countries.—Austria, 14 years for both sexes; Germany—the man at 18, the woman at 14; Belgium—the man at 18, the woman at 15; Spain—the man at 14, the woman at 12; France—the man at 18, the woman at 15; Greece—the man at 14, the woman at 12; Hungary—Catholics—the man at 14, the woman at 12; Protestants—the man at 18, the woman at 15; Portugal—the man at 14, the woman at 12; Russia—the man at 18, the woman at 16; Saxony—the man at 18, the woman at 16; Switzerland—the man at 14, the woman at 12; Turkey—at puberty?—*Journal de Medicine de Bordeaux*.

Hydrate Chloral in Blenorhagia.—Dr. Pasqua has used this drug, $1\frac{1}{2}$ gramme ($21\frac{1}{2}$ grs.), to 120 rosewater for injections. The injections are made twice a day, and the fluid retained for a few minutes. On the third or fourth day, the frequent desire to urinate and the erections lessen and become less painful. The flow diminishes and becomes clear, and ceases completely in 8 or 10 days.—*Gaceta Medica de Cataluna*.

The Red Cross.—Most of the sovereigns of Europe in-

structed their plenipotentiaries in convention to agree to certain regulations to lessen the rigors of war on soldiers and sailors.

Art. 1. Ambulances, with neutral flags, and containing sick or wounded, to be unmolested.

Art. 2. Also included, the personnel of hospital and transportation.

Art. 3. Such persons to remain unmolested where they are, or retire when optional.

Art. 4. The material of hospitals to be subject to the laws of war.

Art. 5. Inhabitants of the country assisting will be respected and unmolested.

Art. 6. The sick and wounded of any nationality will be returned home unmolested or paroled for the war.

Art. 7. The Argentine Republic adopted the same.

[NOTE.—Nearly all civilized nations adopted the same and violated them whenever it suited civil or military commanders. “Good precepts and well pronounced, and would be better when well followed.”—C. R. C.]

Proceedings of Societies.

Richmond Academy of Medicine.

(Charles S. Brittan, M. D., Richmond, Va., Secretary.)

December 16, 1879.—**Potassio-Lithia Waters in the Uric Acid Diathesis, in Gout, and in Renal Congestion.**—The President of the Academy, Dr. M. L. James, reported three cases of the uric acid diathesis, treated at their homes by the water from Spring No. 2, of the Buffalo Lithia Springs, Va. The patients were females, the diatheses marked, and the results of treatment entirely satisfactory. In one of these patients there were, as results of this diathesis, sandy deposits in the urine, inflammation of the kidneys, irritability of the bladder, and hæmaturia, and finally the passage of a calculus of the size of a cherry, formed on a blood-clot as a nucleus. In another case there were frequent attacks of nephritic colic, attended by sandy depositions in the urine. After the free use of this water in these cases, no further manifestations of the disorder occurred.

Dr. James stated that medicines were used when required by pain or other special indications, and careful hygienic regulations were enforced, but the favorable results seemed

clearly attributable, in a large degree, to the action of the Buffalo water. He further remarked, that while a sound philosophy always accepted therapeutic results, whether explainable or not, in a remedy which has acquired so wide a reputation as this water, and which, for cases with the uric acid diatheses, is unquestionably a remedy of very great value, the mode of its action is a matter of much interest to the medical mind. He admitted the frequent difficulty of explaining the *modus operandi* of mineral waters; but in the instance of Spring No. 2, he thinks chemical analysis justifies expectations of such results as are found in the clinical reports.

This water, containing a considerable quantity of the carbonate of potash, and an amount of the carbonate of lithia, which, while not large, when regarded simply by the numerals, becomes, when the peculiar therapeutic action of this agent is considered, a constituent of important value. The active solvent properties of both of these agents upon the comparatively insoluble urates of soda—the form in which, for the most part, at least, uric acid is found in the blood—and their decided diuretic properties have both been clearly demonstrated. They thus freely dissolve the noxious formations, and then, through the kidneys, remove them from the system.

Charcot, whose authority on these subjects is so cheerfully recognized on both sides of the Atlantic, in his *Leçons Cliniques sur les Maladies des Viellards*, after reporting his own experiments, establishing the active solvent properties of the agents referred to on the urates of soda, cites approvingly the experiments of Garrod, who made three solutions of three fourths of a grain each of the carbonates of soda, potash, and lithia separately in an ounce of water. In each of these solutions, he immersed pieces of cartilage incrustated with the urate of soda, allowing them to remain forty-eight hours. At the end of the forty-eight hours, the solution of the carbonate of soda had produced scarcely any appreciable result on the incrustations; the solution of the carbonate of potash had produced moderate solvent results, while that of lithia had effected complete solution.

The positive experiments of Mitscherlich and others sustain the general impression of the profession as to the decided diuretic properties of potassa and lithia. With these two agents, then, the leading indications of treatment in the uric acid diathesis are met.

Dr. James remarked that the application of these facts to the treatment of gout so readily suggest themselves, that he

would not detain the Academy by any detailed statement on that subject. He would simply refer to the experiment of Stricker, in which he succeeded in removing large tophaceous deposits in the joints of a woman, by the use of an artificial imitation of the lithia waters of Weilbach.

Dr. James then proceeded to the report of a case of congestion of the kidneys, in a lady $8\frac{1}{4}$ months advanced in pregnancy, attended by marked œdema of the extremities, which was also diffused to a considerable extent over the entire surface, and uræmic poisoning to that degree that the vision was so much impaired that she could not recognize him. The threatening features of the case had filled his mind with the keenest apprehensions of the issue of labor, but under the free use of lithia water, with acetate of potash, jaborandi, and dry cups to the surface—the gravity of the case not justifying the omission of any remedy likely to be useful—at the end of three weeks the alarming features had disappeared, and she was delivered without an untoward symptom.

King William County [Va.] Medical Association.

(Reported by Dr. Geo. Wm. Pollard, Ayletts, Va., Secretary.)

At a stated meeting of the King William County Medical Association, held at the Courthouse, on Thursday, August 12th, 1880, Drs. Braxton, Littlepage, Nunn, Lewis, Spiller, Whiting and Pollard were present. Dr. John Lewis opened the debate by reading an interesting paper on

Contagium Vivum and Germ Life [from which we make the following extracts, for want of space to publish the entire paper]: “By the expression *contagium vivum*,” says Dr. Burdon-Sanderson, “I mean to designate the doctrine, that when a contagious disease is communicated by the atmosphere, by personal intercourse, or in any other way, conveyance takes place by specifically endowed organisms, which stand in similar relation to the disease, to that in which the seed does to the plant. For just as the seed is at once, the origin and the offspring of the plant, so according to this view, the morbid germ produces the disease, and is in its turn produced by it.” These germs are living forms, and belong to the vegetable or animal kingdom.

As professors of the divine art, the cure of disease has heretofore been our grand aim; henceforward, to prevent disease, will be our aim. Thanks to a young German physician named Koch, and to others, the *materies morbi*, that pyrogenic influence which initiates nearly all diseases, is re-

duced to an ocular demonstration. It has been truly said, "we have been scourged by invisible thongs, attacked from impenetrable ambuscades, and it is only to-day, that the light of science is being let in upon the murderous dominion of our foes." They are in numbers innumerable; they are so infinitesimal in size, so ubiquitous in existence, that the contemplation of them brings us to the consideration of that infinity which we are unable to reach.

It is said there is nothing new under the sun, that God finished his work when he made man, and crowned it with the helpmate he gave him; and even these master pieces of the divine art were not made *de novo*, for man was formed from the dust of the earth, and woman from him. These are the only works of God in primordial time, which were made by a change of form, and this form was made animate by the vital spark infused into its existence from God himself. To preserve this vital spark or principle of life, is the physician's calling. Is it common to all of God's creatures, both animal and vegetable? If God ceased from creating material things, we may also infer that he ceased from creating immaterial. Then, this principle of life has perpetuated itself through all the ereas of time, and our lives are but the prolongation of the lives of our first parents, and so with all animate nature.

This principle of life is all pervasive, as ubiquitous as the imponderables, light, heat and electricity, and only wants suitable pabulum and fit surrounding circumstances to develop itself everywhere in nature. It is always changing—man, beast and vegetable; even the earth itself is in a transition state. Their very existence compels this state of things.

Animals feed on organized matter; vegetables on inorganic. As the action of the wind and water and other physical causes wear off and wash down the mountain, hill and solid rock, to be fed on by the vegetable, so these ultimate germs of life prey on, and break down, and reduce to their ultimate particles, the master works of creation, both animal and vegetable, to be in turn again fed upon.

From the days of the humoralists, the similarity between fermentation and some of the diseases of the system have been observed, and they called certain diseases *zymotic*, signifying fermentative. Here, as the ancient Athenians unwittingly were right in erecting an altar to the unknown God, so these votaries of science unknowingly knelt at the true shrine. Recent microscopical research has nearly proved to an ocular demonstration, "that the ultimate causes of

fever lie for the most part outside the body, and that all sanitary questions hinge on discovering them; that a *materies morbi*—a pyrogenic virus—is introduced into the system, and produces in the blood or other fluids of the body, processes similar to or identical with those of fermentation and putrefaction. That these virulent particles themselves, or their secondary production, during another phase of life, enter the vascular system, find in the blood a pabulum or plasma, favorable to their growth or development, and by this development set up a process of decomposition, and thus become a pyrogenic cause, and produce the disturbances in the system which we call fever.” They have also discovered that these pyrogens exist outside the body, and can be destroyed before they enter it.

Hereafter, to exterminate these pyrogens will be our grand aim. As you control the flame to prevent the building being ignited and its beauty marred or destroyed, so we, in whose hands are in some measure the issues of life and death, should exert ourselves to control and put out those fires which consume the system. “The yellow fever alone is supposed to have destroyed 25,000 lives, and property to the amount of \$200,000,000 in a single year.” The *fons et origo* of this mighty stream has been reached, whose annual overflow fills the fairest portion of the land with pestilence and death. May we not hope its waters will be healed? This, indeed, would be a triumph for medicine, equaling if not surpassing the discoveries of the immortal Harvey and Jenner—the one pointing out the circuit of the life-sustaining fluid; the other erecting a barrier to that scourge, which, like a besom of destruction, swept over the habitable globe.

Upon careful investigation, the phenomena attending the process of fermentation, and the action of morbid agents on the animal system, the similarity will be seen to be very great, if not identical.

At one time, the term fermentation was applied to all those chemical changes which occasion effervescence, but now, according to modern acceptation, it may be accomplished without it. Professor Miller describes it to be the “various transformations which organic compounds experience under the influence of a small quantity of organized matter, which is itself in a state of active alteration.” This organized matter consists of living germs, and the process is purely biological, and not merely physical as it was supposed to be. It is not possible unless the germ is present, even if all the necessary conditions exist, as is proved by fruits and meats being

kept indefinitely in sealed cans; nor is it possible at the boiling or freezing points. In like manner it is fair to suppose the animal will remain healthy until the morbidic germ enters the system and meets with suitable surroundings for its development.

In an essay like this, and on such an occasion, it would be impossible and not desirable, to go into all the minutiae of the process, we will, however, notice a few of them.

Alcoholic Fermentation.—This is the change which sugar undergoes under the influence of minute vegetable germs. These germs are said to belong to the vegetable kingdom, they disengage carbon di-oxide from the saccharine fluid, and convert nearly all the remainder into alcohol, which remains in the hydrated solution. These germs are very minute globular-shaped bodies, and are thought to feed on the saccharine solution by osmosis; carbon di-oxide is given off, alcohol, a small portion of glycerin and succinic acid remain in the hydrated solution. The process of fermentation goes on until all the sugar is exhausted; the germ dies for want of food. But this remaining solution is capable of sustaining another genus of germs known as the *mycoderma aceti*, which will come into action if the alcohol is not separated from the solution. There is also the *putrefactive fermentation*.

The theory of contagium vivum supposes that the morbidic germ enters the system as the germ enters the saccharine solution; and as certain conditions are necessary to its development in the solution, so certain conditions are necessary to develop the fever-producing germ in the animal. It is not only necessary to introduce it into the system, but surrounding circumstances must favor its development. We see two persons living in the same house, consuming like food and drinks, breathing the same atmosphere; the one remains healthy, the other becomes sick. The germs must be supposed to enter the systems of both; it may be the vital power (the *vis preservatrix* or *vis medicatrix naturæ*) of one wards off disease, and is powerless in the other. It may be that in one case the germ life antagonizes its opposite; in the other case, this agency is powerless. We know that parasites feed on each other, and that this is the surest remedy for all insect pests. Animal and vegetable life neutralize each others effects on surrounding matter, and thus maintain a state of uniformity in performing the functions of their respective spheres. They are the complements of each other, or the checks and balances of organic life. It may be the

varieties of germ life neutralize each other in like manner.

Although the germ theory embraces the theory of contagium vivum, they should not be confounded. The germ theory maintains that minute forms of organic matter are widely diffused through nature, and produce the different fermentations. These forms of germ life are infinite in number. Scientists tell us they give color to the atmosphere. The theory of contagium vivum maintains that a *materies morbi*—a morbid agent *sui generis*—is introduced into the system, produces a peculiar disease, as the seed produces a peculiar plant. It may enter the system in the air we breathe; it may be swallowed in the food; it may be taken into the mouth, pass into the stomach, enter the circulation with the chyle, and become incorporated with the blood. Here it meets with suitable food for its natural development. In fact, this is its home, prepared for it by the great Creator. Fermentation or zymosis goes on through all the natural processes, and if not arrested by the vital principle of the animal, it appropriates to itself all the ingredients in the body suitable for its support. The body dies and the cycle is completed. In like manner the germ enters the saccharine solution, fermentation is established, and goes on until all the sugar is consumed, the pabulum is exhausted, alcohol is formed, and the germ dies.

Besides the microbes which are invisible to the naked eye, the varieties of insect life are infinite. Nearly all of them are parasites on the animal or vegetable. If we examine some of them, their habits, their mysterious advent and disappearance, etc., it may throw some light on the subject of the entozoa; for we must suppose the entozoa, the epizoa and all parasites are governed by the same natural laws.

At one time the whole country is scourged by joint worm; it remains a few years and then disappears as suddenly and as mysteriously as it made its appearance. The chinch bug, the Colorado beetle, the aphistritisis, the midge, the boorer, etc., all have their day. These insects give character to the diseases of vegetable life, and each requires peculiar treatment. We know the types of human diseases are as variable as those of vegetable life, and may be governed by like causes.

Again, my brothers, let me encourage you to look forward for a brighter day to dawn on our profession. Let each member of the profession realize that a responsibility rests on him, and he is expected to do his duty. The country physician has peculiar advantages for investigating many

subjects which cannot be had in the city. The country is the place to investigate the secrets of nature, where nature is free and untrammelled by the artificial surroundings of the city. Recollect the compliment paid you by the distinguished ex-president of the Medical Society of Virginia (Dr. Levin S. Joynes) at its last meeting. Some of the brightest ornaments of the profession (Jenner among them) have been country physicians. Let each one make observations and report them; utilize the new and unknown agents, which nature, with a liberal hand, has bestowed on us. It is said, wherever the poison exists, there nature also supplies the antidote.

We have the clue to the cause of diseases, let us look for the antidote. I have great hopes for medicine. I see men's minds directed to the true path. Ours is indeed a noble calling, "the only one relating to earth-born things, which, while it ennobles the mind of man, yet softens and expands his heart, whose source is all science, whose end is good to man."

Dr. Pollard made some remarks on the influence of "contagium vivum" on self-limited diseases, and also on the antagonism between certain diseases. The discussion was continued at some length by Drs. Littlepage, Lewis and Pollard, but as their remarks were extemporaneous, the Secretary failed to make a full report.

Dr. Pollard described a case of supposed *malarial poisoning, resulting in death from convulsions and suffocation*. The disease closely simulated meningitis, but that was excluded by absence of its most characteristic symptoms. Dr. Lewis thought from the symptoms, that the disease was due to malaria. Dr. Braxton concurring in this opinion, thought that in the final paroxysm, death was caused by spasm of the glottis.

On motion of Dr. Nunn, the essay of Dr. Lewis was ordered to be sent to the *Virginia Medical Monthly* for publication.

"Antipyretics—their mode of action," was chosen as the subject for discussion at the next meeting, and Dr. R. G. Hill appointed to open the debate.

Drs. Richards, Spiller and Mitchell were appointed a committee on Clinical Reports.

After some congratulatory remarks by the President on the harmony of the meeting, etc., the Society adjourned to meet at the Courthouse on the first Thursday in November.

CLINICAL SOCIETY OF MARYLAND.

Meeting held May 7th, 1880.

Dr. Christopher Johnston, President, in the Chair.

Dr. Eugene F. Cordell, Reporting Secretary.

Treatment of Foot Deformed by Burn.—Dr. Randolph Winslow exhibited two casts of the foot of a boy, upon whom he had operated for the relief of deformity following the cicatrization of a burn. One cast was taken shortly before operation, and showed the peculiar deformity very beautifully; the other represented the result of the treatment. This boy, five years of age, had been burnt several years previously upon the right leg and foot, and in the process of healing, the anterior surface of the leg and the dorsum of the foot were united by a dense band of cicatricial tissue, which elevated the outer border of the foot, and subluxated four of his toes, drawing three of them perpendicularly upwards and backwards, until only their under surfaces were visible—the upper surfaces of two of these being lost in the cicatricial mass, the other two being involved to a less degree. The deformity was not only unsightly, but was painful, and the cicatrix was subject to fissures and ulcerations during the cold weather. He was also unable to wear an ordinary shoe. On October 29th, 1879, Dr. Winslow dissected away, with scalpel and scissors, all the cicatricial tissue, and forced the dislocated toes into their natural position, and bound them down upon a foot board, made out of a piece of cigar box, and attached to the sole by means of adhesive strips. The toes and foot were kept in this extended position until cicatrization was complete. Several times during the healing of the wounds, it was necessary to make additional incisions at the ankle to prevent contraction of the cicatrizing tissues. Three months from the date of the operation, the wounds were healed and the patient was allowed to get up. Constant walking, however, soon caused the newly formed skin to ulcerate, and he was put to bed until the cicatrization was again complete. A foot board, with brass heel piece, padded on the inside, and openings for the passage of strips, which buckled upon the dorsum of the foot, was now applied, and the boy was permitted to get up. He is to wear this until all tendency to contraction of the cicatrix, upon the dorsum of the foot is overcome. At present this tendency seems to have been destroyed, but he still wears the apparatus.

Prolonged and Excessive Use of Morphia Without Apparent Bad Effects.—Dr. Coskery reported the case of a lady, aged 47,

a music teacher, who began the use of morphia for chronic dysentery 23 years ago. After eight years she was consuming 20 grains a day; for the last six years she has been taking 30 grains daily—usually in two or three doses. Notwithstanding this excessive use of the drug she is bright and cheerful, with rosy cheeks, and her skin presents the smooth appearance of a woman of 25.

Specimens: Tumor of Labium and Multilocular Ovarian Cyst.

Dr. Erich exhibited (1) a tumor removed from the right labium majus. It had existed for seven years and was very hard—harder than fibroid. It presented the appearance of an enchondroma, although no microscopical examination had yet been made. It had been removed by an elliptical incision and dissected from the tissues, in which it was imbedded. The patient had also a tumor in one breast—very hard, probably fibroid in character. It had been growing for six years, and was attributed by her to a blow, which she had received on the mamma. There was no history of injury, however, in the former case. The patient had also a lipoma on her shoulder. (2) Ovarian tumor composed about one-half of almost perfectly solid tissue, the rest exhibiting a number of cysts. The patient was 62 years old, the mother of ten children, and had been tapped 47 times, the operation latterly being repeated every nine days. Recently the pain, nausea and vomiting had been so great as to lead her to contemplate a respectable form of suicide by ovariectomy as a means of relief. She did not have the slightest hope of recovery from the operation. Removal was effected by an incision eleven inches long. Extensive adhesions to the abdominal walls were found. The omentum was also adherent high up, and exhibited very much enlarged vessels; it was tied in sections. The pedicle was ligated and dropped into the abdominal cavity. Twenty-one silk sutures were required to close the abdominal incision. The patient made a most satisfactory recovery, her temperature never being above 101°F. Dr. Erich attributed this success to the use of Listerism, together with careful cleaning out of the abdominal cavity. The spray employed in this case was of the strength of 1 to 40. He had previously employed it stronger (1 to 30), but had found it so irritating to his own hands that he naturally inferred it must be so to his patient's abdomen also. In one case poisoning was produced by a 2 per cent. solution, used for washing out the abdominal cavity. The patient became unconscious, delirious, and although her temperature fell from 105° to a point below the range of the

thermometer, she finally recovered. His experience had taught him caution.

Treatment of Retroflexion of the Uterus with Adhesions.—The regular paper of the evening was on this subject, and by Dr. Erich. It was based upon the results of treatment of six cases, in which the uterus was bound down in the hollow of the sacrum by adhesions which were forcibly ruptured with a view of restoring the organ to its normal position. Dr. Erich stated that these cases were hopeless as to benefit by any treatment previous to the introduction of the method now recommended. He was led to resort to this plan by observing the immunity from bad effects enjoyed by patients in whom adhesions have had to be ruptured in the operation of ovariectomy. The only allusion Dr. Erich had been able to find to this subject was in the writings of Prof. Schultze, of Jena, who says that he divides the adhesions in cases of retroflexion without bad results, but advises against treating cases accompanied by parametritis. The following case will serve as an illustration of the whole: Uterus found retroflexed and firmly bound down; the operation was performed under anæsthesia January 6th, 1880. Two sponge probangs were passed up behind the cervix, and firm pressure made, forcing the organ into a state of anteversion, in which it was retained by a stem pessary within and a Hodge's pessary below. The temperature subsequently never exceeded $99\frac{1}{2}^{\circ}$, and only slight soreness in the lower part of the abdomen was complained of, which soon passed away. But she could not bear the continuance of the Hodge's pessary, indicating that the adhesions had not been ruptured but only stretched. She was again anæsthetised, and after sufficient dilatation had been secured, a large sound (invented by the late Prof. N. R. Smith, and used by him for sounding the bladder for stone) was passed up to the fundus uteri, and brought forward to such an extent that it could be felt through the abdominal wall, at a point between the umbilicus and pubis. The stem, again introduced and kept in by a Hodge's pessary, was removed in a few weeks. On April 10th, an examination revealed no trace of the retroflexion. The other cases were treated by the second method described, and without the production of more pain than is caused by the introduction of sponge tents, which, by the by, are always necessary in order to permit the introduction of the large sound referred to. Only one of the six cases, so far as known, failed to be cured. In this instance, the patient returned in four weeks with retroflexion unaltered. The only

explanation Dr. Erich could offer in this case was, that the adhesions had not been ruptured, but only stretched. The fifth case was complicated by sub-peritoneal fibroid tumors. Here the vaginal pessary was not tolerated; nevertheless, four weeks afterwards, although there was retroversion, there was no retroflexion, and the uterus was more mobile. The sixth case is still under treatment and progressing favorably; the stem and vaginal pessary are still worn. Of the six cases, four were white and two colored. In some, peritonitis had existed, in others not.

In conclusion, the speaker thought his experience justified him in offering the following propositions:

(1) The stem-pessary should not be used until we have excluded the presence of para- and peri-metritis. Peritoneal adhesions of the fundus uteri may exist, yet with so much mobility that we become aware of their existence only when we endeavor to replace the organ.

(2) Forcible rupture of adhesions is not a very dangerous operation. Mere drawing forward of the uterus may fail, owing to the very yielding tissue of the rectum. It is almost incredible how far the adhesions will stretch. In future operations he intended, if necessary, to introduce his left hand into the rectum to prevent its moving forward.

(3) Pressure in the vagina behind the cervix may fail.

(4) The patient must be kept in bed for at least one week, or until all bloody discharge ceases. If paroxysmal pains occur after rising, she must return to bed.

(5) She should be examined from time to time, as the stem may come out.

(6) The hard rubber stems were preferred, the usual size being about equal to a No. 14 (French) bougie. They should be about $\frac{1}{4}$ inch shorter than the uterine canal, and should have a rim at their vaginal extremity, the concave surface of which should be above. As the uterus will be in a state of anteversion, nothing is needed to keep the stem in. Dilatation may be effected, instead of using tents, by the introduction of a smaller and then larger stem in succession. If inflammatory excitement occur, the stem should be removed. Dr. Erich usually keeps it in for six weeks, including two menstrual periods, removing it after the second. The Hodge's pessary should be retained longer.

In none of the cases reported was there the least sign of peritonitis or pelvic cellulitis following the operation; all the symptoms present would be produced in cases of simple dilatation alone.

Dr. John Morris thought the force demanded in the operation proposed by Dr. Erich involved danger, and hence, if employed at all, it should only be by skillful hands. Dr. Sims never uses the sound in obviating displacement, as he considers it dangerous; he uses the repositor.

Dr. Bernard Browne thought further details necessary. Emmet points out the fact that adhesions may appear to exist when they do not. Furthermore, adhesions indicate the presence of cellulitis at some previous period, and very likely still existing in a subacute form, in which event both stem and sound are to be reprobated. The immunity enjoyed by Dr. Erich was not to be expected in all cases.

Dr. Arnold said pessaries are very ineffectual; removing or overcoming the adhesions is the proper treatment. He had seen some of Dr. Erich's patients, and is sure they would have remained unrelieved if they had not been treated in the manner stated by Dr. Erich. We have been playing too long with pessaries as though they were toys. The uterus must be liberated from its attachments, if possible, and then a proper pessary will have a chance of keeping that organ in its normal position.

Dr. Erich said the danger of Sims' repositor is almost as great as from the sound. The walls of the uterus may be as readily torn by it as by Simpson's sound. The sound above recommended is as thick as the end of the finger. Schultze employs his finger; Dr. Erich did not, because his finger was not long enough, and the introduction of the whole hand into the vagina, which necessarily accompanies it, is somewhat painful. Moreover, with the use of the instrument less dilatation suffices. The adhesions must give way before the uterine tissue. If pelvic cellulitis were present, of course the operation would not be thought of; but these well-marked symptoms are also present, as tumor in the broad ligament, phlegmon, etc. With simple adhesions this is the treatment. Of course there is danger in the operation, and it is necessary to know when to stop. When the uterus is tied down, the Hodge pessary is useless, and only increases the flexion. In reference to the remarks of Dr. Browne, he could not understand how "peritoneal adhesions can indicate the presence of cellulitis at some previous period."

Dr. Tiffany thought there was danger of the front wall of the rectum giving way.

Dr. Erich replied that if such force were required as to endanger the continuity of the rectum, the operation was unjustifiable. With one hand in the rectum, we can always

tell when a yielding of its tissues is threatened. He does not propose to involve the operation with such danger as the use of such extreme force would indicate. He did not believe the adhesions are as strong as the rectal wall. The worst that would be likely to happen would be a separation of the peritoneum from the anterior wall of the rectum.

Dr. Uhler thought there was reason to doubt whether the adhesions were really ruptured or not; experiments *post mortem* are needed. Dragging the uterus down to the vulva has been practised without bad results. He thought the introduction of the hand into the rectum would be of material assistance. He inquired what evidence there was of tearing.

Dr. Erich replied that the force used was applied in so gentle and gradual a way, that it would be difficult to notice when it occurred. In ovarian adhesions, there is rarely great resistance.

Dr. J. Shelton Hill asked if such operations had not proved fatal. He had known serious, and in one case, fatal results from the use of the repositor.

Dr. Erich said a careful search had revealed only the one article of Schultze. He would suppose the use of the finger in the uterus much safer than the sound. The instrument employed simply represents the finger; it has the advantage of being applicable one day earlier than the latter. It will enter after the use of the second tent.

June 4, 1880.—Specimen of Sarcoma Developed from Sciatic Nerve.—Dr. Tiffany exhibited a specimen and related the following history: A ship-carpenter, aged 60, began to notice that his toes drooped in walking, and showed a tendency to stub against things. Six months ago pain set in, at first intermittent, but by and by became continuous and severe. These symptoms involved the left lower extremity. At the same time, a tumor was noticed at the back of the same thigh, which, when he came under observation, was five inches long, movable transversely, and of the size of the fist. The pain was intense, both day and night, and required opium in large doses for its relief. Various applications had previously been made. The diagnosis, sarcoma of sciatic nerve having been made, an incision six or seven inches long was made in the course of the nerve, the nerve drawn out and about six inches of its length cut off. The fibres of the nerve were seen running around and through the tumor. Microscopical examination of the growth showed exceedingly long spindle cells, with long tails, also blood-vessels, not large. Between and amongst these, but not infiltrated,

were the nerve fibres. At one point the mass was pultaceous, as though broken down by previous hæmorrhage. At the time of operation there was complete paralysis below the knee, both of sensation and motion. The present condition of the patient is peculiar and unaccountable. There is no voluntary motion in the muscles below the knee. There is no response to the constant current in the tibials, peroneals, or sole of the foot; the response in the calf muscles is slight, and less than before the operation. Sensation is abolished in the parts below the site of tumor, except in the cutaneous tract of the leg and foot supplied by the long saphenous nerve. He can stand and walk with his eyes shut. In doing so, he uses his leg as a stilt. He has no muscular sense, yet gets about perfectly well. There are no glands affected. The operation was done in March. The patient is covered with growths of the order of molluscum fibrosum.

Dr. Tiffany's attention had been drawn to an analogous case reported by Dr. I. E. Atkinson in the *New York Medical Journal*, in which there were several neuromata, the largest being connected with the ulnar nerve.

Dr. Coskery questioned the correctness of the term neuroma, as applied to this growth; there was no evidence of increased growth of nerve tissue, but only of separation or spreading out of the nerve fibres by the abnormal material developing in their midst. A case is related in the *Lancet*, in which four inches of the sciatic nerve was removed, and the ends then stitched together; the patient recovered with complete sensation and motion. The ability to walk in the present instance probably depends upon the influence of the anterior crural nerve.

Dr. Tiffany pointed out that when the patient walked it was with the knee bent, which meant use of the quadriceps extensor. The tumor developed within the sheath of the nerve. He was not able to say whether there was hyperplasia of nerve tissue or not, though he thought the former probable. Sections made by himself and Dr. Conneliman revealed nerve fibres everywhere present. He believed it to be a spindle celled sarcoma, involving the nerve fibres secondarily. There was a large increase of the connective tissue. It was to be observed that he only advanced the knee of the affected side when at rest, and that he could stand on the sound limb and draw the other leg nearly to a right angle with the thigh.

Dr. Coskery thought that it was late in life for a sarcoma. Nerve tissue is more rapidly regenerated than any other, and

there was no reason why when irritated it should not take on hyperplastic growth.

Dr. I. E. Atkinson called attention to the connection of neuroma and the fibrous tumors of the connective tissue. Persons affected with mollusum fibrosum show evidences of feeble development. In an experience embracing some four or five cases of this affection, he has been led to observe that both physical and mental capacity were below the normal. He was inclined to attribute this to the generally disproportionate development of connective tissue. Sarcolemma and neurilemma, functionally defective tissue, take up too great a space. He thought sarcomata were not so rare in advanced life as had been supposed. He regarded the growth under discussion as a false neuroma; long spindle cells should not be in true neuroma.

Labor Following Recently Ruptured Aneurism.—Dr. J. Shelton Hill reported that the patient in whom he had ligated the popliteal artery for a ruptured aneurism of the ham, had been confined four days previously. Her child died the next day. The incisions have nearly healed, but the patient is completely prostrated from excessive loss of blood, and her condition is critical.

Diabetes Aggravated by Eating Raw Oysters.—Dr. Uhler mentioned the case of a gentleman, about 64 years of age, suffering with slight brain trouble and paralysis, and of evidence of sugar in his urine, whose urine, every time he ate raw oysters, increased in specific gravity from 1013 to 1028 or 30. Oysters contain glycogen, and a ferment, and in this disease (diabetes) it is better to dispense with them.

Lithotomy.—Dr. Christopher Johnston reported a case in a gentleman, aged 68, who began to have difficulty in passing urine about sixteen months ago. Examination with the sound revealed the presence of more than one stone. The operation was done with N. R. Smith's staff and gorget. So thick were the perineal tissues that the guiding blade attached to the moveable arm of the instrument was hardly long enough to find its bed; and so deep was the perineum that Smith's drainage tube, which was introduced for a few hours, was altogether concealed behind the lips of the wound.

The instrument was carbolized; and the wound Listerized from behind by injecting into the bladder, previously washed out, a solution of borax, 20 grains to the ounce, carbolized with acid crystals, one drachm to the pint, and which gushed out, of course, when the gorget reached the bladder, and cleansed the track of the incision. Three calculi, supposed

to be of lithic acid, were extracted; and three arteries, one of them very deep, required ligature. The patient was a heavy man, weighing 225 pounds, and his height was six feet. The bladder closed by the next morning, and urine flowed exclusively from the urethra from that time forth without impediment or difficulty, and the patient was well again in a fortnight, in spite of an acute dysentery which seems to have been excited by one laxative pill exhibited before the operation. Castor oil would have been preferable.

Analyses, Selections, etc.

Prepared by HUGH M. TAYLOR, M. D., Demonstrator of Anatomy, etc., Medical College of Virginia, Richmond.

Diagnosis of Mammary Tumors.—In the New York *Medical Journal* of June, 1880, we find a valuable and exhaustive paper by Dr. Samuel W. Gross on the formation of a correct diagnosis of mammary tumors. Both breasts should be fully exposed, and the patient put in the recumbent posture. The presence of a new growth having been determined, the surgeon should first ascertain whether it be of a carcinomatous or a non-carcinomatous nature. Among the non-carcinomatous neoplasms are fibroma, sarcoma, myxoma and adenoma. His experience leads him to conclude—(1) That during the rudimentary condition of the organ, the only growth met with is *fibroma*. (2) When the glandular structure is being evolved after the appearance of the menses, and the connective tissue is still in excess, *fibroma* and *fibrous sarcoma* are the most common growths. (3) At the epoch of and after the first pregnancy—that is, between 20 and 30 years of age—when the glandular structure is perfected, and the connective tissue is vascular, succulent and rich in cells, *fibromata* and small, round-celled or small, spindle-celled *sarcomata* (which are equivalent to medullary sarcomata) are to be anticipated. (4) From the 30th to the 40th year, or during the stage of passive maturity, *cystic sarcomata* and *cystic fibromata* are most frequently met with, and true *adenoma* is also most common. *Lastly*. During the period of involution, when the lacteal glands are disappearing, and the connective and adipose tissues are becoming abundant, *myxoma* and *carcinoma* make their appearance.

Valuable information is to be derived from the consistence, dimensions, isolation and mobility of the growth, as well as

the condition of the skin, nipple, subcutaneous veins and the associated glands. In the *non-carcinomatous tumors* the skin, while it may be thinned, stretched and discolored, or somewhat adherent, is rarely invaded by cell infiltration, and is never the seat of distinct nodules or tubers. In *carcinoma*, on the other hand, its infiltration by advancing epithelial cells, gives rise to a hard, brawny condition, which is very characteristic, or to extensive adhesions, or to distinct tubers; and it is very frequently pervaded by beaded or varicose lymphatics—a condition by the author placed in the opposite class of tumors.

While ulceration is less frequent in the non-carcinomatous than in the carcinomatous growths, it also arises in a very different way, and has certain peculiarities which are distinctive. Thus, it is the almost invariable result of limited gangrene of the thinned and stretched but not infiltrated skin; while its edges are smooth, soft, and somewhat elevated upon the fungus which protrudes through without being attached to it. Such an appearance is peculiar to the *non-carcinomatous* growths, and is of itself quite sufficient to exclude the idea of carcinoma. The nipple is permanently retracted in more than one-half of the cases of carcinoma; while it is sunken by the protrusion of the tumor beyond its level in only one out of every twenty of the non-carcinomatous neoplasms. When, in addition to the retraction, the mamilla is also fixed and indurated, these conditions may almost be regarded as pathognomonic of *carcinoma*. Discharge from the nipple merely indicates that the glandular structure is involved either primarily or secondarily, and that one or more of the ducts leading from the secreting lobules are permeable. When it antedates the detection of a tumor, there is every probability that the growth is an *adenoma*. If the neoplasm has a solid and hard feel, it is probably a *carcinoma*, since a discharge is only met with in *cystic non-carcinomatous tumors*. Fixation or adhesion to the walls of the chest is a valuable symptom of *carcinoma*, inasmuch as it is ten times more frequent, and far more extensive, than in the opposite class of growths.

Of all the signs, there is none so important in the differentiation as the state of those lymphatic glands which are in anatomical connection with the breast. Thus, in every one hundred cases of *carcinoma*, where the patient first comes under observation, the axillary glands will be found enlarged and indurated in sixty-four; and in nearly one-third of these the glands above the clavicle will also be contaminated. Of

the *non-carcinomatous* tumors, on the other hand, out of every one hundred cases, in only three are the axillary glands enlarged, while they are never densely hard. The glands above the clavicle are never implicated.

The diagnosis of the *non-carcinomatous* is based upon their occurrence in one case out of every six, and two-thirds before the age of 20; their greatest frequency before the 40th year; their multiplicity in one breast; their circumscribed, rounded or bossed outline; the firm consistence of the smaller and the unequal feel of the larger; their mobility in or on the breast and the adjacent tissues; their comparatively rapid growth and large volume; the almost normal appearance of the skin; the enlargement of the superficial veins when they are bulky; their tendency to ulcerate and fungate late in the disease; and the absence of adhesions between the protrusion and the circular, and, as it were, punched-out margins of the ulcer; and finally, their freedom from a history of hereditary predisposition, retraction of the nipple, and enlargement of the associated lymphatic glands.

The points in favor of *carcinoma* are a history of heredity; non-development before the 20th year; greatest frequency after the 40th year; irregular knobby outline; uniformly densely-hard consistence; immobility in the breast; relative small volume and slow growth; retraction of the nipple; enlargement and induration of the lymphatic glands; invasion of the skin; fixation to the pectoral muscle or walls of the chest; limited ulceration late in the disease, without any tendency to fungous protrusion, and in the thickened, indurated and everted edges of the ulcer. Carcinomatous tumors are not surrounded by capsules; they are attached to and are with difficulty freed from the adjacent structures. The *non-carcinomatous* have capsules, and are easily enucleated.

A uniformly hard, perfectly movable, nodular, slowly-growing tumor, particularly if it be seated at the upper and outer part of the gland of impubic subjects and of married women toward the 23d year, free from ulceration, alterations in the skin, veins, nipple and lymphatic glands, is a *solid fibroma*, and the diagnosis is strengthened by the presence of several growths in one or both breasts.

A hard, lobulated, peripheral tumor, or one which, after having remained stationary or progressed slowly for several years, suddenly and rapidly acquires a large volume, assumes an unequal consistence—being firm at some points and soft and fluctuating at others—occurring towards the 36th year, unaccompanied by lymphatic involvement, but attended pos-

sibly with discoloration of the skin, deformity of the nipple, and limited superficial adhesions, and possibly with dilatation of the veins, discharge from the nipple, and ulceration and fungous protrusion, is a *cystic fibroma*.

A firm, rapidly-growing peripheral tumor, appearing in prolific married females at or about the 37th year, with, possibly, discoloration and adhesion of the skin, and ulceration, but without deformity of, or discharge from the nipple, or enlargement of the glands, is a *solid sarcoma*.

A tumor possessing these attributes, and occurring toward the 32d year, is probably a firm, *spindle-celled sarcoma*; while one developing about the 42d year is more apt to be a firm, *sound-celled sarcoma*.

A lobulated tumor, particularly if it involves the greater part of the mamma, of quick growth from the commencement, or progressing rapidly after having increased comparatively slowly for some time, of large size, of varying or unequal consistence, occurring toward the 33d year in prolific married subjects, and attended with discoloration of the skin, ulceration, enlargement of the veins, and, possibly, with discharge from the nipple and limited adhesions, or, it may be, with deformity of the nipple and glandular enlargement, is a *cystic sarcoma*.

A very rapidly-progressing tumor, of soft, apparently fluctuating consistence, with stretched skin and enlarged veins, appearing in young girls before puberty, and in young married women, is a *medullary sarcoma*; which may be solid or cystic, and is, as a rule, composed of small spindle cells.

A solitary, rapidly and continuously-growing, although not very bulky, rather firm, or possibly soft tumor, occurring at about the 45th year, with limited discoloration of the skin, but not fixed to the chest, and attended possibly with deformity of the nipple, superficial adhesions, ulceration, dilatation of the veins, and enlargement of the axillary glands is a *solid myxoma*. Cystic myxoma possesses the same consistence and growing attributes of the former variety, but it develops at about the forty-eighth year, and is liable to be attended with discoloration, adhesion and ulceration of the skin. The veins, nipple, and glands are, however, normal.

A hard, heavy, nodular, solitary, very slowly and equally increasing tumor, especially if it develops in the immediate vicinity of the nipple of a married woman toward the thirty-fifth year, accompanied by adhesion and discoloration of the skin, and ulceration, and possibly by deformity of the nipple and enlargement of the glands, but free from fixation to the

chest and dilatation of the veins, and preceded by a discharge from the nipple, is a *cystic adenoma*. A solid adenoma cannot be distinguished from a solid fibroma.

A densely hard, inelastic, irregular, solitary, slowly growing tumor occurring in prolific married females toward the forty-eighth year, inseparably connected with the mamma, accompanied by induration and enlargement of the associated glands, retraction of the nipple, infiltration of, and possibly nodules in the skin, ulceration and fixation to the chest, and it may be by a discharge from the nipple, is a *scirrhus carcinoma*; and the diagnosis is strengthened if there be a history of heredity, if the tumor was preceded by psoriasis or eczema of the nipple, or if it developed from an induration left by puerperal mastitis.

A soft, lobulated, voluminous, solitary, and rapidly increasing tumor, occurring in the same class of women, at about the fiftieth year, and attended with infection of the glands and skin, retraction of the nipple, fixation to the chest, and, possibly, extension to the opposite breast, but without discharge from the nipple, or marked tendency to prominence of the veins or ulceration, is a *medallary* or *encephaloid carcinoma*.

A hard, very slowly growing, small, solitary tumor occurring toward the forty-fifth year, with adhesion to the skin and, it may be, nodules in that structure, prominence of the veins, retraction of the nipple, and enlargement of the glands, and, possibly, with invasion of the opposite breast, fixation to the chest, ulceration, and discharge from the nipple, is a *colloid carcinoma*.

A densely, hard, irregular and contracting, and small, solitary tumor, occurring at about the forty-seventh year, and attended with retraction of the nipple, infection of the glands and skin, and, possibly, distinct tubers in the latter structure, ulceration and immobility on the chest, is an *atrophying schirrhous*.

A slowly increasing, solitary, nodular, or slightly lobulated tumor, occurring after the menopause, covered by thinned and discolored skin, fluctuating and, probably, discharging by the nipple, but without enlargement of the veins or glands, and without fixation to the chest, is an *involution cyst*.

A solitary, smooth, firm and elastic, or, possibly, fluctuating tumor, occurring in the vicinity of the nipple of young and prolific married women, of moderate volume, of slow growth, and unattended with alterations in the veins, nipple, skin or glands, or with adhesions, but liable to ulceration

and enlargement of the glands if it inflames, is an *evolution cyst*.

A solitary, slowly growing, not bulky, fluctuating, or semi-solid tumor, occurring near the nipple of lactating women, and unattended with changes in the coverings of the mamma or in the glands, is a *lacteal cyst*.

A slowly growing, small, smooth, round, firm and elastic, or fluctuating, solitary tumor, occurring between the ages of twenty and thirty years, seated at the upper and outer border of the breast, and not near the mamilla, with a disposition to ulcerate, but without other changes in the skin, veins or glands, is a *hydatid cyst*.

Solid *non-carcinomatous tumors* present themselves simply as circumscribed growths, which have an equable consistence, grow slowly, are of moderate volume, and are not characterized by alterations in the associated or contiguous structures. The *cystic neoplasms*, on the other hand, have a variable consistence, grow rapidly, and attain a large volume, and are quite liable to changes in the skin, prominence of subcutaneous veins, limited superficial adhesions, spontaneous ulceration, and fungous protrusion, and a discharge from the nipple. The cystic only represents a further stage of evolution than the solid. Valuable aid may be derived from the exploring needle.

Occipital Headache a Symptom of Uræmia.—Dr. E. C. Seguin, of New York, details two cases of interest, bearing on this subject in the August No., 1880, of the *Archives of Medicine*. In both cases, the occipital headache was so localized and persistent as to give strong ground to suspect organic cerebellar disease; but they now appear to have been cases of contracted kidneys and uræmia.

Lieut. X., U. S. A., aged 36 years, consulted him November 5th, 1879. He had frequent attacks of general headache before graduation in 1867; since then, he had had attacks of occipital headache two or three times a year; but in the last few years, the attacks were much more frequent, lasting a day or two, accompanied by delirium and sometimes by vomiting, which were often relieved by potassium bromide. During an attack in 1876, he had an epileptiform convulsion without biting his tongue. In February, 1879, he had headache, with a convulsion, in which his tongue was bitten. In the Northern States he had few headaches; whereas, in Texas he had a great many. He often feels sore and full in the back of the neck, and is very nervous after the attacks. On

October 26th, 1879, an attack was aborted by potassium bromide. No special ocular symptoms attend the attacks; and his eyesight is normal; but the face is then flushed, and the head feels full and pulsating. His father and grandfather had sick headache. He has abstained from intoxicating drinks since 1876. He has never had syphilis, nor been injured about the head. Cervical spine is not tender; no dyspepsia; heart normal; general appearance healthy. On November 6th, was puffy under the eyes. Specific gravity of urine ranges from 1018 to 1020, with from 1 to 5 per cent. of albumen, with hyaline casts. Subsequently, evidences of chronic Bright's disease were invariably found. Urea, about 12 grammes in one pound of 24 hours urine.

A merchant, aged 47 years, consulted the Doctor, December 21st, 1879. Had formerly good health; no head injury; no syphilis. During adult life, has had periodical headaches about every three weeks, each attack lasting a day, and attended with nausea—evidently migraine. About twelve years ago, he had what was called sunstroke. In 1874, his urine was normal. During the last two years, he has suffered headache almost every morning, and the attacks have been growing severer. In the past two months, he has had nausea and vomiting several times a week. Confined to bed for past two weeks. This pain differs from former headaches in that it is more violent, is of a different character, is distinctly occipital, and lately has also been cervical, and is paroxysmal at any time, chiefly during the day. After an attack, he is much prostrated and dull. The nausea comes on after the pain—none between paroxysms. The pain has extended from the occiput into the vertex and the top of the head, aggravated by motion. No affection of sight or hearing; no dizziness. Paullinia effectual for a few days only; of late, has needed morphia and bromide of potassium—as much as 15 grammes in twenty-four hours of the latter. No albumen found in urine. Patient is feeble; but articulation is distinct; mind clear; head not tender; partial ptosis of right eyelid; no strabismus; no lesion of the fundus oculi. Right side of face rather inert; but the heavily coated tongue points straight. Hands of proportionate strength; right foot drags after a little walking; no incontinence of urine; morphia acts readily. Heart normal, but irregular pulse—two accelerations noticed in a minute. Trace of œdema over tibiæ. Says his neck is not really stiff, but he carries his head on one side and keeps it still; no opisthotonos. Pain extends now to sixth cervical vertebra. Many of the symp-

toms of cerebellar tumor present; but one was lacking—neuro-retinitis. Perhaps, also, he was brominized.

Dec. 23. Three specimens of urine examined. Specific gravity varied from 1024 to 1025; albumen in all—from 3 to 10 per cent.; also numerous hyaline and granular casts. Died conatose, December 27th, without convulsions or further paralytic symptoms. At autopsy, the encephalic mass was normal. Left kidney was granular and hard in places; membranes peeling off with difficulty. It had a reddened, congested appearance, with evidences of chronic, as also recent acute inflammation. Right kidney only somewhat congested, and had the same type of lesion.

He never complained of backache, nor of any of the usual signs of Bright's disease.

Both patients were adults; both had suffered from chronic headache of the migraine type; the headache became transformed into localized occipital pain, very different from that of the former attacks. In Case 2, the pain extended down the cervical spine, and was much aggravated by movement. In Case 1, there was once stiffness of the neck in an attack. This peculiar headache was distinctly paroxysmal, but not at all periodical or influenced by any apparent outward circumstance. Nausea accompanied the headaches; and, in Case 2, the nausea was secondary in point of time. Case 1 was made relatively clearer by the previous history of convulsions, and by the fact (not stated in the notes, but quite clear in my recollection) that the surgeons in attendance then (1876) found albumen in the urine.

Case 2 was complicated by symptoms of paralysis, partial ptosis and a weak right leg. These phenomena, together with the astonishing debility, staggering gait and the sluggish state of the mind, were probably due to brominism—a condition which is a possible serious complication in the diagnosis of disease. The symptoms of renal disease were not marked; in one case there was no œdema, in the other a mere trace; neither patient had the dyspeptic symptoms or the frontal headache, which often suggest renal disease, and neither patient has the "Brighty look." The occipital sensation in these cases was true pain, not the painful paræsthesiæ which are sometimes due to lithæmia and oxaluria, and sometimes to eye-strain, and which are insufficiently designated as cerebral hyperæmia.

These cases may serve to illustrate the utility of critically examining the urine in cases of any degree of obscurity—more especially as occipital headache is scarcely mentioned as a symptom of uræmia.

Mechanical Treatment of Pregnancy Vomiting.—Dr. J. Marion Sims contributes to the *Archives of Medicine*, June, 1880, a valuable *resumé* of the treatment of this troublesome condition, with cases and remarks. It has long been regarded as a reflex symptom, but has never been treated as such until very recently. A few years ago, Graily Hewitt enunciated the doctrine that it was due to flexure and malposition of the uterus, and published cases confirmatory of this view. In February, 1878, Dr. M. O. Jones, of Chicago, published a paper on this subject in the *London Lancet*, in which he took the ground that it was due to congestion or granular erosion of the cervix uteri, and that it was to be treated locally by nitrate of silver or other escharotic, and related several cases relieved by this treatment. Three or four years ago, the late Dr. Copeman, of Norwich, England, brought this subject prominently before the profession by various articles published in the *British Medical Journal*, in which he maintained that it was due to induration of the cervix uteri and contraction of the canal. On this theory, he simply dilated the cervix mechanically, with the happy result of curing his cases in two, three or four days. Many of them were cases of a very rebellious character, in which the patients were greatly prostrated from prolonged vomiting and consequent inanition. Dr. Sims has relieved several cases in a few days by Dr. Jones' method. In all of them there was granular erosion, to which he applied a solution of nitrate of silver, 5j to the ounce. In 1878, a case came under his care in Paris at the third month, where the vomiting was excessive, and uncontrollable by ordinary means. The cervix was small and indurated, but there was no granular erosion. After applying a solution of nitrate of silver two or three times without any decided improvement, he tried dilatation of the cervix according to Copeman's plan. There was marked improvement in three or four days, but not a complete relief, as the uterus was anteфлекed, and a Meigs' ring had to be introduced to elevate the uterus. He thinks it is possible that dilatation alone might have afforded relief, but in the pessary he found a valuable adjunct. Copeman's method consists in gradually forcing the finger into the os and carrying it along until the first joint of the finger enters the cervical canal, taking care not to push it so far as to impinge against the os internum. Theoretically, this would appear to be hazardous; there would be some risk of producing abortion. But so far we have reports only of successful results. And yet these several methods are not without a certain amount of risk, and

must be cautiously tried; and, of course, we should not resort to this heroic method of treatment unless the case is urgent and rebellious. In Graily Hewitt's plan, we must be careful not to make undue pressure on the cervix uteri with the pessary. In Dr. Jones' plan, we must place the patient in the left lateral semi-prone position, apply a Sims' speculum, and then pencil the caustic solution on the granular surface, and on that alone. In Copeman's plan, we must gently insinuate the end of the index finger in the os tincæ, and pass it into the cervical canal not more than three-fourths of an inch deep. This is to be done with the patient on her back. If the uterus should be flexed anteriorly (as it usually is in such cases), he cautions the operator not to throw the fundus up and push it back toward the promontory of the sacrum with the bi-manual method, for this bi-manual pressure in the early months of pregnancy may provoke abortion.

Hyoscyamine—Therapeutical Uses.—Dr. J. C. Shaw, Medical Director of Kings County Insane Asylum, thinks hyoscyamine is valuable in acute and subacute mania as giving periods of muscular rest and sleep to the patient which cannot be done so well by any other drug. In epileptic mania, he has had excellent results in warding off maniacal attacks, which last for weeks following epileptic fits. One dose will frequently prevent this state. In cases of mania, with or without delusions, where the patients are destructive, tearing up and breaking everything, and filthy in their habits, he has found benefit from a few repeated doses of $\frac{1}{4}$ to $\frac{1}{2}$ grain. In cases of acute alcoholic mania, with delusions, it has the very best effect. In delirium tremens, with decided hallucinations of vision and delusions, which lead the patient to get out of bed and try to get out of the house, windows, etc., $\frac{1}{4}$ to $\frac{1}{2}$ grain given by the mouth has a rapid and complete effect, giving the patient quiet and sleep. It is not, however, to be supposed that hyoscyamine is at all a specific in mental and nervous diseases. All that can be claimed for it is that it is a palliative agent which meets the indications better than chloral or any medicine yet in use. It must not be expected to keep the patient continually under its influence; it is better to give one controlling dose, and let him recover from it before giving another. Hyoscyamine is the active principle of *hyoscyamus niger*.—*Archives of Medicine*, June, 1880.

A New Anæsthetic.—In the *Chemical News* of April 2d, 1880, Mr. W. Bowman Maclene is reported to have intro-

duced a new anæsthetic to the members of the Odonto-Chirurgical Society. This new nerve-stiller is a combination of ethylen-dichloride and ordinary nitrous oxide. The ethylen-dichloride is placed on a sponge in the tube through which the nitrous oxide passes. Only a small quantity of the former is required. Anæsthesia results in from one and a half to two and a half minutes. The sensation is said to be more profound and agreeable than when nitrous oxide is used alone. Mr. Macleane had used the anæsthetic sixteen times without any unpleasant resulting symptoms. In only one case was there stertor. The pulse was slightly accelerated but strong, while there was a complete absence of lividity, so repulsive to the looker-on. The muscular system also, instead of the rigidity characteristic of anæsthesia from nitrous oxide, was quite relaxed—thus greatly facilitating the manipulations of the operator. The Society resolved to experiment with this mixture.

Ethylen-dichloride is composed of carbon, hydrogen and chlorine in the following proportions: C_2 , H_4 , Chl_2 . It is a colorless liquid, having specific gravity of 1.271 at a temperature of zero (Centigrade); it has a pleasant, ethereal odor, and a sweetish taste; it boils at 85.5° (C). It is easily soluble in ether and alcohol, but insoluble in water. Passed through a red-hot tube, it is decomposed into carbon, hydrochloric acid and carbon dihydrate. It burns with a bluish-green flame. A solution of potassium hydrate in alcohol converts it into ethylen-monochloride by abstracting hydrochloric acid. Ethylen-chloride is obtained by the direct action of chlorine on olefiant gas, and also by treating alcohol with chloride of phosphorus.—*Chicago Med. Gazette*.

Duchenne's Disease.—Dr. S. Weir Mitchell thinks it important that the mass of the profession should realize the inexorable fatality of posterior sclerosis; for while a great deal may be done for it, nothing, in his opinion, ever effected a cure. He has only occasionally met with an arrested development, a temporary lessening of the symptoms, or, it may be, a total loss of some symptoms. He has been led to compare the progress of Duchenne's disease to that of a man who has an inevitable staircase to descend. He may linger or go back, but the descent is yet to be made, and the best he can hope for is to go down slowly and with long pauses. In one of his patients, twenty years elapsed without change; in others, periods of five to fifteen years without loss or gain. In three of these cases, there was at one time such ataxia of

motion in the arms as to make them useless, and in each of the three these limbs re-acquired useful movement, while the whole case progressed slowly from bad to worse. It is clear that in this, as in most spinal disorders of an inflammatory nature, there is a constant element of mischief—the sclerosis—which, once in possession, seems implacable; and also there is a congestive element which varies in amount and intensity and explains the gains which at times surprises us, and inspires physicians of sanguine temperament to hope that they are curing a case of sclerosis. It is not improbable that this may be a systemic disease, and the spinal disease but a symptom. These arrests or delays show that a condition hostile to its progression can exist, and offers to future medicine some ray of hope. This opens a large, and, possibly, in the future, a fruitful field. Now we know but too well that when this sclerosis is in full possession we can do but little. The earliest signs are troubles of the motor apparatus of the eye-ball, slight urinary troubles, neuralgia, vertigo. Such cases usually pass into the hands of the ophthalmic surgeon, who treats only the eye symptoms, or into the hands of a general practitioner, by whom he is treated for rheumatism or neuralgia. Dr. Mitchell is sure that he has seen, over and over, good results from the use of nitrate of silver and iodide of potassium, and of these the latter does most good. This last remedy does good not only in cases a sequence of syphilis, but in cases where syphilis could not be suspected. In all of his cases, he has seen the largest gain in cases of habitual drinkers, who left off the habit while being treated with 5j or 5ij of the iodide. The question of hygiene is an important one. Nothing is more distinct than the relation between posterior sclerosis and exposure to cold, and likewise the great heats of our summers are very hurtful. The localities which suit them best in summer are moderate elevations, such as the foothills of the Alleghanies, or Saratoga, or the Adirondacks. The seaside or cold sea baths are undesirable. As concerns exercise, the writer usually advises the patient very early in the case of the risks of fatigue; and whether or not he advises a period of absolute repose, he makes prominent the necessity of avoiding exercise. If at any time he sees a tendency to rapid loss of power, or if to walk is clearly hurtful, he advises some form of crutches or other support long before the patient feels them essential; and as the arms suffer last and least, it is well in this way to throw part of the work on them. By rubbing and kneading we accomplish much. Their objects are to excite locally

the circulation, to empty thoroughly all the vessels within reach, to flush the whole limb so as to raise its temperature, and to stimulate vigorously the muscles so as to give them, at least for a time, the tone they lack. No appetite should be indulged with more caution than the sexual. While the writer does not agree with many authors, especially some of the French observers; in thinking that over-sexual indulgence is a most common excitor of this disease, he recognizes it as a frequent consequence, but not as a frequent cause. He cites, as a curiosity of this subject, that two of the very few women he has seen afflicted with this disease suffered for a year or more from dreams of coitus before any other notable symptom declared itself; and in them, as in men, these erotic dreams gave rise to the most extreme exhaustion. As the case advances, the utmost care is needed in regard to the bladder. It is apt, sooner or later, to become feeble; retention of a portion of urine with decomposition follows; then cystitis of a low type, which is too often the beginning of the end. The patient or nurse must early be trained to use the catheter. Tobacco has a decisively hurtful influence, causing in the patient a most remarkable increase of nervousness, and temporarily impairing locomotion. The question is often asked, How long will the patient live, and to what extent the capacity to use the brain will be lost? The first question does not admit of an answer. The latter is easily answered. The writer can recall ataxies engaged in pretty active business as lawyers, merchants, clergymen and doctors, whose sole incapacity arises of their pains and their lack of muscular coördination.—*Med. Times*, May, 1880.

Litholapaxy—Bigelow's Method.—The conclusions arrived at by Bigelow were, that if the bladder will tolerate a rough stone for a number of years it will tolerate a lithotrite long enough to crush the largest stones, and that while it is very tolerant of the presence of a smooth polished instrument, it is very intolerant of any sharp fragments of stone left behind. His results are so marvelous that there are but few disbelievers to be proselyted. Even Sir Henry Thompson—lithotrity's greatest champion—has yielded the palm to litholapaxy, and has now practiced this new operation on thirty-one patients. Rapid lithotrity or litholapaxy was shown to be easy when Otis demonstrated the fact that the capacity of the average urethra is very nearly 33 mm. The operation depends upon the enlargement of the evacuating tubes from the size of the common catheter to one from 25 to 33. The

sittings are prolonged from a few minutes to an hour or more, if necessary. To show that this operation is safer than the old one of several sittings, we have only to mention the results. Minor difficulties are being appreciated. The evacuating apparatus and lithotrite are being perfected as the operation becomes more generally performed.

Dr. Keyes' article on rapid lithotripsy with evacuation is the most exhaustive that has appeared. He reports twenty-one cases occurring in his practice and that of his partner (Dr. Van Buren). They extend over a period of two years, during which every case of stone that came under his charge was treated by the rapid method, and death resulted in only one case. He tabulates 107 cases with but six deaths. In his cases, in only two was a stone left large enough to crush at a second operation. The greatest length of time occupied at one sitting was eighty-five minutes, and with a yield of 630 grains of phosphatic stone. His patients were in all conditions of health—some with moderate evidences of renal disease. As to the length to which the sitting may be prolonged, Dr. Keyes suggests one hour—which limit, however, he would not always strictly adhere to. In preparing for the operation, if there is atony of the bladder, and the urethra is accustomed to the catheter, no further preparation is necessary. If before the operation the urine is decomposed, the bladder should be washed out with a saturated solution of borax in hot water until it becomes sweet. In operating, he crushes rapidly from six to ten times, according to the size of the seizures, then washes until the debris ceases to fall into the receiver, when the lithotrite is at once re-introduced while an assistant empties the receiver and refills the bottle. Dr. Keyes regards the operation as being indicated in almost every case of stone—the only conditions which contra-indicate it being “hopeless maladies of any kind, distortions of the urethra preventing the use of proper instruments, and possibly an unusually large and hard stone. It has been suggested that some cases with serious kidney and bladder disease will be benefited by the free draining through the incision in lithotomy. Dr. Keyes reiterates the caution already expressed by others, that litholapaxy is not a simple operation, except to the experienced lithotriptist, and thinks it should not be undertaken by those who are not thoroughly familiar with the handling of instruments in the bladder, and who cannot distinguish a fold of mucous membrane if caught within the jaws of the lithotrite.

Toxicological Action of Bromide of Ethyl.—Dr. Isaac Ott, from experiments upon rabbits, concludes that bromide of ethyl, by either inhalation or subcutaneous use, kills by a toxic action on the centres of respiration; that the decrease of force and frequency of the heart contribute to the paralysis of the respiratory centres; that injections of ethyl into the jugular vein towards the heart kill by cardiac arrest—probably due to an action on the cardiac muscle. In toxic doses, it depresses momentarily the frequency of the heart, followed by a subsequent permanent rise to normal rate. In toxic doses, it depresses the actual tension steadily, due in major part to the depressant action of the drug upon the heart; and in minor part to a partial loss of tone of either the spinal vaso-motor centres, or of the peripheral vaso-motor system. The inhibitory power of the pneumogastric is not paralyzed.

He concludes from experiments also upon rabbits, that in *Piscidia Erythrina* or *Jamaica Dogwood*, we have a drug capable of producing death by arrest of the respiratory apparatus. It is a narcotic to frogs, rabbits and men. Frogs seldom recover from a moderate dose of it. It does not affect the irritability or the motor nerves. It does not attack the peripheral ends of the sensory nerves. It reduces reflex action by a stimulant action on the centres of Setschenow. It produces a tetanoid state by a stimulant action on the spinal cord, and not by a paralysis of Setschenow's centres. It dilates the pupil, which dilatation passes into a state of contraction upon the supervention of asphyxia. It is a salivator. It increases the secretion of the skin, and reduces the frequency of the pulse. It increases arterial tension by stimulation of the monarchical vaso-motor centre. This increase of pressure is soon succeeded by a fall, due to a weakening of the heart itself. If the action of piscidia is compared with that of chloral, it is found that the former has no dangerous action on the heart like the latter, nor such an energetic action as the latter upon the respiratory apparatus. Compared with atropia, piscidia, unlike the former, does not paralyze the motor nerves; it does not paralyze the chord or tympanum; it does not arrest the sudoral secretion; it does not paralyze the pneumogastric, and does not elevate greatly the arterial tension; but like it, dilates the pupil. Compared with *morphia*, like it, it produces sleep, heightens excitability, spinal convulsions, general paralysis and stimulation of the main vaso-motor centre; unlike it, it dilates the pupil. In the use of this drug he would add the caution that its surface is pleasure, and its depth death.—*Detroit Lancet*, June, 1880.

Union of Tendons.—Dr. Charles Baum reports a case occurring in the practice of Dr. D. Hayes Agnew, which illustrates the readiness with which tendons unite. The patient's hand was struck on its dorsal surface by a circular saw. The stroke divided all the tissues, and almost completely severed the metacarpal bones, except that of the thumb, just one and a half inches from the wrist-joint. The distal ends of the tendons of the extensor communis digitorum were lying at the bottom of the wound much lacerated. The proximal ends were retracted to such an extent as not to be visible. Each retracted tendon was brought down by passing a pair of forceps along the sheath to the extent of three-quarters of an inch. A fine carbolized catgut suture was passed, first, through the centres and through the sheaths of the divided tendons, and their ends brought well into apposition. Immediately after the sutures were fastened, the patient was able to extend his fingers almost as well as before the accident. The patient made a good recovery. The power of extension is free and strong. He can pick up a pin with ease; his fingers have become as supple as ever. He has long ago resumed work, and experiences no restraint in the muscular action of his fingers.—*Philadelphia Medical Times*, March, 1880.

Symptoms of Bright's Disease.—In parenchymatous and interstitial nephritis, it is clear that we have two tolerably well pronounced and distinct diseases, often associated with each other, but differing in pathology, ætiology and symptoms. In parenchymatous nephritis, we have a disease of the kidneys, local, like pneumonia or cirrhosis of the liver, upon which depends the symptoms. In interstitial nephritis, we have also a local disease, but as a part of a more general one, the symptoms being partly dependent upon and partly coincident with the renal disease. Parenchymatous nephritis cannot always be sharply divided into acute and chronic. The former is likely to shade off into the latter, and has much the most favorable prognosis. The closer the case follows an acute type, the better are our chances for success in its treatment. Such cases, with rest, regulated diet, sustaining treatment and attention to the secretions generally do well. The length of time a patient may live with parenchymatous nephritis is by no means inconsiderable. The writer reports cases lasting from ten to thirteen years. The prognosis of interstitial nephritis is somewhat different. While its progress is often slow, when once begun, it never goes back.

When it progresses to a point when his eyesight fails, the palpitation of his heart becomes a constant annoyance, and headaches are frequent and severe, and the prognosis is of the most gloomy kind, and the treatment reduces itself to that of the most troublesome symptom. There is a decided tendency at this time to make the vascular changes the primary cause; to suppose that high arterial tension is first developed, and as a consequence renal, cardiac, and sometimes arterial and cerebral disease. The changes in the small renal arteries have long been known, and it was supposed that the resistance to the passage of blood through them was sufficient to raise the tension of the blood, and throw enough additional work upon the heart to cause hypertrophy; but it can be shown that the kidneys do not affect a large enough of the total circulation to bring about such a result, even if they were totally atrophied; and it is very clear from the amount of urine secreted that the quantity of blood passing through them cannot be greatly diminished. We are thrown back upon either the theory of myocarditis, and relative insufficiency of the aorta, or of impurity in the blood, which prevents its easy passage through the capillaries. Lead-poisoning is recorded as a not infrequent cause of interstitial nephritis. Gout is so notoriously connected with the contracting kidney as to have given it one of its many names—the “gouty kidney.” Dr. Murchison considers one of the functions of the liver to be the decomposition of nitrogenous material into the easily soluble urea, and thinks when the liver fails of its function, lower products of oxidation, such as uric acid, or others less well known, are found and circulate in the blood, but without necessarily giving rise to a true gouty paroxysm. This condition he terms lithæmia, and describes the symptoms, which are chiefly those of dyspepsia with constipation, headache, drowsiness, giddiness, and restlessness at night. He thinks this condition, by throwing a burden of excrementitious material upon the kidney to be eliminated, becomes one of the chief sources of nephritis, both of acute Bright’s disease, and of the contracted granular or gouty kidney. The lesson from this is, that you had better take much pains with a curable dyspepsia, than be called upon to deal with an organic disease, which will prove much more incurable.—R. T. Edesin, *Boston Med. and Surg. Journal*, July, 1880.

Book Notices, &c.

Treatise on Therapeutics. Translated by D. F. LINCOLN, M. D., from the French of A. TROUSSEAU, Professor of Therapeutics in Faculty of Medicine, etc., and H. PIDOUX, Honorary President of the Société de Therapeutique, etc. Ninth Edition. Revised and Enlarged with the Assistance of CONSTANTINE PAUL, Professor Agrégé in the Faculty of Medicine of Paris, etc. In two 8vo. Volumes. New York: Wm. Wood & Co., 1880. Vol. I. Pp. 302; Vol. II, Pp. 299. (For sale by Messrs. West, Johnston & Co., Richmond.)

These two volumes of "Wood's Library of Standard Medical Authors" are not really suited to the purpose for which the series was designed. In the first place, the leading author himself died about thirteen years ago, and the work is not up to the times in many particulars. In the next place, not so much as one-half of the original text is translated—thus rendering the book defective as to a historical record of his period. Thirdly, most of the subjects are discussed from old points of view, when the depletive plan of treatment was the popular one. But Trousseau was a great man in his times, and many of the advances made both in practical medicine and in therapeutics by him hold good to this day. Indeed, no student of the science of medicine can fail to recognize the immense service which he has rendered. Many new agents have been introduced which have become regarded as almost specifics—in the sense of mercury for syphilis, quinia sulphate for ague, etc.—most of which are not referred to. But few of the modern introductions into pharmaceutical art and therapeutic science have been even alluded to; while we think the translator and editor, by annotations, at least, when the author was discussing the *classes* of remedies, should have referred to all of them, to indicate to the young student what discoveries have been made since the immortal Trousseau wrote his book. In short, the whole translation is incomplete, and the annotations of the editor are so few and unsatisfactory, that we cannot recommend the purchase of the book. We should say that doctors who have little money to spend, would do better to buy other books of a more recent date. Iodoform and chloral are spoken of, and good advice regarding their use are given in these two volumes. But we find no reference to the several therapeutic *classes* of drugs. Of such omissions, we may speak of such prominent ones as cinchona and its various salts, amyl nitrite, anæsthetics in general, jaborandi, dialyzed iron, ingluvin, etc.

We are sorry to feel called upon to speak so plainly to our subscribers, who look to us for advice regarding books being published that ought or ought not to be purchased, since we so heartily approve of the plan of the publishers, and laud their generosity, to supply the profession with a "Library of Standard Medical Authors," and especially since the publishers have arranged for the publication of more recent, or at least, a more complete re-publication of *standard* works.

Treatise on Foreign Bodies in Surgical Practice. By ALFRED POULET, M. D., Adjutant Surgeon Major, etc. (In two Volumes.) New York: Wm. Wood & Co., 1880. 8vo. Pp. 271—320. (From Publishers.)

These volumes are very useful to every practitioner. The work is pretty much limited to a study of foreign bodies found in the natural passages—not imbedded in the solid tissues of the body. The author shows that he has made an immense research into the literature of the subject, collecting and tabulating rare cases as they have been reported in monographs and periodicals; and then by systematic study of the cases reported, he throws out various therapeutic suggestions—many of which proposed measures are ingenious and worth remembering. The work possesses all the value of a well arranged and an authoritative "emergency book;" and as such should be in every doctor's library. We know of no other systematic work on the subject. The books form two of the current year's volumes of "Wood's Library of Standard Authors," and are sold on the same terms as other volumes of this "Library."

Surgery, Surgical Pathology and Surgical Anatomy of the Female Pelvic Organs. By HENRY SAVAGE, M. D., Lond., F. R. C. S., etc. Third Edition. Revised and Greatly Enlarged. New York: William Wood & Co., 1880. 8vo. (From Publishers.)

This volume of "Wood's Library of Standard Medical Authors" is a very valuable one to every student of gynecology. It consists of a series of plates, taken from nature, besides containing descriptive text, commentaries, notes and cases. It has specially well presented illustrations of the operations on vesico-vaginal fistula, ovariectomy and perineal operations. The plates number 32; wood engravings 22. The plates and engravings are all first-rate. We know of no one book of the kind of moderate cost which is to be preferred to the present edition of Savage's *Female Pelvic Organs*.

A New School Physiology. By RICHARD J. DUNGLISON, A. M., M. D., Editor of "Dunglison's Medical Dictionary," etc. Illustrated with 117 Engravings. Porter & Coates, Philadelphia. 12m. Pp. 314. (From Publishers.)

This, as its title would indicate, is an entirely elementary work, and is not needed by physicians. But it frequently happens that, for general school purposes, physicians are asked the title of a good text-book. The work now under notice is a first-rate one for such a purpose as is indicated above. The name of the author gives authority to the book.

Photographic Illustrations of Skin Diseases. By GEO. HENRY FOX, A. M., M. D., Clinical Professor of Dermatology, Starling Medical College, Columbus, Ohio, etc. New York: E. B. Treat, 1880. Royal quarto. Price \$2 per Part. (For sale by Messrs. West, Johnston & Co., Richmond.)

We have before us Parts XI and XII of this popular work, which we have had occasion so often to compliment. Part II gives exact colored plates of herpes facialis, hydroa bullosum, erythema circinatum and exfoliativum, and purpura simplex. Part XII relates to cornua cutanea, alopec̃ia areta, morphœa, scleroderma, and sarcoma pigmentosum. This Part XII completes the series; but it has been so well received—so accurate as to the plates and text—that the Publisher announces a companion work entitled *Photographic Illustrations of Cutaneous Syphilis*. The design is good, useful and popular, and we recommend the *Photographic Illustrations* to every doctor.

Fracture of the Patella. By FRANK H. HAMILTON, M. D., Visiting Surgeon to Bellevue Hospital, etc. New York: Chas. L. Berningham & Co. 1880. 8vo. Pp. 106. (From Publishers.)

The profession in America especially owes a debt of gratitude to Dr. Hamilton which all the honors it can heap upon him will never repay. Following most closely in all his studies the true course of scientific research and discovery, he has done more to advance the cause of surgery—especially in regard to the subjects of fractures and dislocations—than any living author. The boldness of his enunciation of the lessons he has learned—opposed, as they are, to the teachings of many eminent surgeons of a past, as well as of the present day, who have not so carefully or honestly followed up and reported their cases, which are yet in keeping with the ordinary experience of generally capable practitioners—has saved many an innocent surgeon from the legal fate of a malpractitioner.

Lessons in Gynæcology. By WM. GOODELL, A. M., M. D., Professor of Clinical Gynæcology in the University of Pennsylvania, etc. With 92 Illustrations. Philadelphia: D. G. Brinton. 1880. 8vo. Pp. 454. (From Publishers.)

Dr. Goodell has become one of the most prominent authorities on gynæcological subjects. His present book is not what is known as a systematic work; but its range of subjects is so broad that with but few additional sections and some slight re-arrangement of the text, it could be easily changed into one. The style is mostly clinical, and is both clear and instructive. The descriptions of the operative procedures are generally given very much in detail, thus making these *Lessons* of great service to the younger class of practitioners. Thorough familiarity of the author with the latest teachings, which are duly credited, besides his own many original suggestions, give the book a special value to more practised gynæcologists as well—both in the line of therapeutical remedies and surgical procedures. The exhaustion of the first edition within six months, with a pressing demand for this second edition, show the great favor with which the book is received. This second edition contains several more lectures than the first. We may add that these *Lessons* should be in the library of every general practitioner, while no one who devotes anything like special attention to diseases of women can afford to be without them.

The Physical Examination of the Chest in Health and Disease.

By REGINALD E. THOMPSON, M. D., Cantab. Fellow of the Royal College of Physicians, Senior Assistant Physician and Pathologist to the Hospital for Consumption and Diseases of the Chest, at Brompton. With Illustrations on wood. Henry Renshaw, 5, 356 Strand, London. 1879.

The reviewer begs leave to state, that in 1853-4, he was permitted to be a private student of the late Dr. W. W. Gerhard, of Philadelphia, later of Dr. Henry I. Bowditch, of Boston; that in 1856, before graduation, after Bowditch, he aspired for pleuritic effusions, and received the Boylston Medical Prize for 1857 on the subject, "Under what circumstances do the usual signs furnished by auscultation and percussion prove fallacious?" as his warrants for attempting to express an opinion publicly as to the merits of the work before us.

It is a pocket volume of 260 pages, with a good index and 24 chapters. I feel free to say, that I have never seen a publication on this subject that has interested me more. Being

based on personal examinations of over 28,000 cases, it lucidly gives the natural position of the organs of the chest, the mode of conducting the examination of the chest, and nearly everything that the eye sees, the hand feels and the ear hears in the physical exploration of the thorax. The arrangement, the diction and the fulness aroused my interest the first time I saw the volume; and, on further acquaintance, my enthusiasm does not abate. Perhaps, it may be too much in detail; but, still, I know of no work better adapted to the wants of busy practitioners, or of instructors in auscultation and percussion. To show that my opinion is not at variance with others, I beg leave to state, that I am informed that the work has been translated into the French language and published in Paris—the home of the father of modern physical exploration of the chest.

In passing, we would say, that Dr. Gerhard used to teach the diagnosis of what he termed “the tobacco heart,” which consisted in a peculiar, indescribable, squeaky pronunciation of the second sound. He regarded this as pathognomonic, and my experience of over a quarter of a century corroborates him. This our author does not notice. Dr. Thompson acknowledges his indebtedness to our own honored Dr. Austin Flint, in a handsome manner.

The physics of pulmonary auscultation are referred to so that the non-expert can understand the *modus operandi* quite well. We hope that some American publisher may give the work to our own profession.

E. C.

The Practitioner's Reference Book. By RICHARD J. DUNGLISON, A. M., M. D., Editor of Dunglison's *Medical Dictionary*, etc.. Second Edition, Revised and Enlarged. Philadelphia: Lindsay & Blakiston. 1880. 8vo. Pp. 476. Cloth. Price, \$3.50. (For sale by Messrs. West, Johnston & Co., Richmond.)

This book is of practical service to the physician—containing the odds and ends of useful information, which have been diligently compiled from books and journals, and hence cannot elsewhere be readily found. The author has taken advantage of the demand for this second edition to add many sections—the most important of which are, perhaps, the following: Celebrated prescriptions, therapeutics of the bowel affections of children, diagnostic tables of the principal fevers, diagnostic tables of acute pulmonary diseases, diagnostic tables of diseases of the larynx and naso-pharynx, diagnostic syllabus of tumors of the groin, ready reference table

of antidotes on a new plan, reference tables of size, weight and specific gravity of all the organs in the body, etc. The section on the rules of medical etiquette is one of special interest.

Atlas of Skin Diseases. By LOUIS A. DUHRING, M. D., Professor of Skin Diseases in Hospital of University of Pennsylvania, etc. Part VII. Philadelphia: J. B. Lippincott & Co., 1880. Royal 4to. Pamphlet. Price per Part, \$2.50. (For sale by Messrs. West, Johnston & Co., Richmond.)

In noticing the preceding Parts, we have been so pleased with their plan and the thoroughness of the execution, that we have had nothing but good to say of them. We have never seen more life like plates in any book of the kind, and they are but little less than full size. This Part VII treats of eczema pustulosum, impetigo contagiosa, syphiloderma papulosum, and lupus vulgaris. We most unreservedly commend the Atlas to every practitioner.

PAMPHLETS, REPRINTS, ETC., RECEIVED, for which we have no room for further notice, but most of which can be obtained by enclosing a letter stamp for each pamphlet to the respective authors named.

Pendulum Leverage of Obstetric Forceps. Pp. 26. By ALBERT H. SMITH, M. D., Philadelphia, Pa.

Report of the Adams Co. [Pa.] Medical Society, with some excellent suggestions and original investigations regarding Rectal Alimentation and Medication. By J. W. C. O'NEAL, M. D., Gettysburg, Pa. Pp. 19.

Rectal Alimentation in the Nausea of Pregnancy. Pp. 31. By HENRY F. CAMPBELL, M. D., Augusta, Ga. A valuable contribution.

The Hand as a Curette in Post-Partum Hæmorrhage. Pp. 5. By HENRY P. C. WILSON, M. D., Baltimore, Md. A useful suggestion.

An Address Commemorative of the Life and Writings of the late Prof. Charles Frick, M. D. Pp. 22. By FRANK DONALDSON, M. D., Baltimore, Md.

Yellow Fever—Its Origin and Relation to Other Malarial Fevers. Pp. 14. By J. G. WESTMORELAND, M. D., Atlanta, Ga.

Bibliotheca Dermatologica. Pp. 37. By HENRY G. PIFFARD, M. D., New York, N. Y.

Spontaneous Osteo-Myelitis of the Long Bones. Pp. 44. By N. SENN, M. D., Milwaukee, Wisconsin. A very complete paper.

Port-Wine Marks, and its Obliteration without Scar. Pp. 24. By BALMANO SQUIRE, M. D., London, Eng.

Ovariectomy—Patient 67½ Years—Weight of Tumor 60 Pounds—Extensive Adhesions—Recovery. Pages 7. By W. F. McNUTT, M. D., L. R. C. P., San Francisco, Calif.

Treatment of Diphtheria. Pp. 8. By IRA E. OATMAN, M. D., Sacramento, Calif.

Retroflexion in Relation to Lacerations of the Cervix Uteri. By NATHAN BOZEMAN, M. D., New York, N. Y.

Annual Address on the Relation of Neurasthenia to Diseases of the Womb. By WM. GOODSELL, M. D., Philadelphia, Pa.

Editorial.

The Medical Society of Virginia will be convened in Danville, Va., at 7½ P. M. on Tuesday, October 19th. We are glad to learn that the prospects for the usual attendance and addition to the Register of Fellows is encouraging. Several prominent gentlemen of other States have been invited to be in attendance and contribute papers to the session. Every recognized regular practitioner in a State should join his State organization, and contribute to the literature of the same whenever anything of special interest occurs in practice.

Mr. T. Roberts Baker.—Referring to our new advertisements, we take pleasure in calling attention to that of Mr. T. Roberts Baker, successor to the well-known and long-established house of Meade & Baker; and we cannot refrain from expressing our great regret that the change in the firm should have been rendered necessary by the ill health of Mr. Meade, who subsequently died (September 24th, 1880).

The firm of Meade & Baker has been in existence 25 years, and succeeded in establishing a reputation for integrity, reliability, and pharmaceutical skill, scarcely surpassed by that of any other similar establishment in this country.

Mr. T. Roberts Baker, who is a graduate of the Philadelphia College of Pharmacy, and was last year the First Vice President of the American Pharmaceutical Association, has purchased the entire interest of Mr. R. H. Meade in the old firm, and will continue the business at the old stand, with every facility for maintaining the high standard which had secured for the old firm of Meade & Baker, the enviable reputation which they have enjoyed for a quarter of a century.

Richmond Eye, Ear and Throat Institute.—We are in receipt of the First Annual Report of the Richmond Eye, Ear and Throat Infirmary and Dispensary, an institution opened and incorporated one year ago, under the charge of Dr. Joseph A. White. The incorporators were Dr. Levin S. Joynes, Gen. Joseph E. Johnston, Mr. James Alfred Jones, Dr. Orlando Fairfax, Mr. Mark Downey, and Dr. Joseph A. White. It has proved to be a needed charity, as 345 patients applied for relief the past year, and 2684 visits were paid. The institution is dependent upon voluntary contributions for its support, and we trust it will meet with the proper encouragement and the pecuniary help it deserves. Our city is sadly in need of medical institutions and proper hospital accommodations for the sick poor of all kinds, and an enterprise striving to cover even a small part of this need ought not to die for lack of appreciation by our citizens and medical brethren.

Ingluvin, it seems from the favorable reports regarding its use, has become a recognized therapeutic agent—especially for the vomiting of pregnancy.* We have seen it fail when other means also failed; but we have seen it succeed when other remedies had been tried without success. From what we have seen and heard, ingluvin, we think, will prove of much more frequent service than either oxalate of cerium, champagne, coffee, and other agents of this class which were formerly generally prescribed for the nausea of pregnancy. Ingluvin has other uses, as, for instance, in atonic dyspepsia, etc. But our object is accomplished if, by this note, we can attract the special attention of practitioners to it. Many a woman will rejoice to know of it.

Drs. Hunter McGuire and George Ross, of this city, have returned from their European trip, and have entered again upon professional duty.

Obituary Record.

Dr. Thomas E. Ballard died at his home at Pittsylvania Courthouse, Va., after a brief illness, on August 2nd, 1880. He was a good and true man, and although just verging upon the prime of life, he had won for himself an enviable reputation as an educated and accomplished physician.

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Original Communications.

ART. I.—**Drinks, Food, Bathing, Exercise, Clothing and Medical Treatment in Bright's Disease.** By J. H. SALISBURY, B. A. S., A. M., M. D., Cleveland, Ohio. (Extract from a paper ready for the press on the "*Cause and Treatment of Bright's Disease.*")

I. **DRINKS.**—Drink one-half pint of hot water, clear, weak tea, or clear crust coffee, one hour before each meal, and on retiring. Drink a cup (eight ounces) of clear tea or coffee, or beef tea (made from beef, freed from fat and connective tissue) at each meal. When thirsty, between two hours after a meal, and one hour before the next, drink hot water, clear tea, or beef tea freed from fat and gelatine. Take no other drinks of any kind, unless it be a few mouthfuls of clear tea or coffee or hot water with the medicine. If the hot water sickens the stomach, sprinkle in a little salt, alum or borax—just enough to take off the flat taste.

II. **FOOD.**—Eat broiled beefsteak, carefully freed from fat, connective tissue, cartilage and bone before cooking. Have it seasoned to taste with pepper and salt. For variety, use the steak (broiled), which is cut through the centre of the round of a lamb or mutton, broiled oysters, broiled quail, broiled grouse, broiled woodcock, broiled snipe, broiled par-

tridge and broiled codfish. The whites of eggs may be taken raw or soft boiled. Avoid all fats as far as possible, only using salt and pepper for seasoning. Mustard, mixed up with hot water and lemon juice, or Worcestershire or Halford sauce, may be used on meats if desired. A little celery may be eaten at dinner.

Avoid all pies, cakes, pickles, vinegar-sauce, soups, cheese, cream, milk, yolks of eggs, fat, sugar, crackers, bread, biscuit, beans, peas, nuts, fruits (except the juice of the lemon), vegetables, and all other foods and condiments not previously mentioned. This rigid diet should be kept up till all traces of albumen and casts disappear from the urine.

When these have ceased to show themselves for a couple of weeks, the patient may be allowed one part of bread, toast, or boiled rice, *by bulk*, to eight or ten of the beef. After continuing this departure for four weeks without any appearance of albumen or casts in urine, the bread, toast, or boiled rice may be increased to one part *by bulk* to six parts of the meat, and a piece of butter the size of a hickory-nut allowed for seasoning.

After continuing these proportions for four weeks, if still no signs of albumen and casts show themselves, the bread, toast, or rice may be increased to one part to five of the meat with a little increase of the butter. Continue these proportions for one month. If no albumen or casts appear in the urine, increase the bread, toast, or boiled rice to one part to four of the meat, and continue this for a month longer. If all is well at the expiration of this time, give the succeeding month, one part of bread, toast, or boiled rice to three of the meat, with a little increase of the butter. Continue these proportions for three months, and then, if no sign of the disease shows itself, increase the bread, toast, or boiled rice to one part by bulk to two of the meat. Cracked wheat may now be brought in as a change from the rice. After continuing this diet for a couple of months, if all goes well, and no signs of albumen or casts appear in the urine, milk, warm from the cow, two hours after breakfast and dinner, may be taken. The patient should go out to the cow and drink the milk as soon as it comes from the teat with all its animal life

and heat. Begin with half a pint, and gradually increase till the patient is taking a pint at a time. After continuing this system of alimentation for a couple of months, if the patient continues to thrive, and is advancing gradually toward health, a little fruit may be indulged in after dinner. This indulgence, however, must be carefully controlled, and the patient not allowed over one peach, apple, orange, or bunch of grapes per day. Sugar and cream, also, may be very moderately indulged in, in tea and coffee.

This system of diet should be followed out for many months; and if no signs of the disease show themselves it may be continued, gradually extending the diet list. It will be well, however, as a general rule, to continue to take two parts of lean meat (broiled or roasted) to one of all other food.

If at any time during the treatment, after the albumen and casts have disappeared from the urine, they begin again to show themselves, as the diet becomes more liberal, the patient should at once come squarely down to the lean meat diet, as he did at the start, and proceed cautiously as before.

The patient will lose in weight during the early part of the treatment, but this need not excite anxiety; for after the first few weeks, this loss will be checked, and a gradual gain will set in.

III. MEALS.—The meals should be taken at regular intervals, and it is better to eat alone, or only with those that are living on the same diet. All temptations should, as much as possible, be removed from the patient. If three meals a day are not sufficient to satisfy hunger, the patient may be allowed a nice piece of broiled steak between breakfast and dinner and between dinner and supper. These extra meals should be taken at fixed and regular intervals. If care is taken in following out this plan of diet, it will not be long before the system gets in good order, the digestion and assimilation will go on nicely, and the patient will eat largely and with great relish. You will often be assured by the patient, that there is no food so nice as a good broiled steak, and he will surprise you by eating all the way from one to two pounds at a meal. Never eat on a tired stomach. Rest

one hour before and after each meal; eat slowly, and masticate the food well.

IV. BATHS.—Take a soap and hot-water bath twice a week for cleanliness, after which rub with a coarse towel till the skin is red. Every night or day, sponge all over with hot water, in which put a tablespoonful of aqua ammonia to the quart of water; rub in well, and wipe dry afterwards.

V. EXERCISE.—Ride daily in an easy buggy or carriage as much as possible without fatigue. If not able to walk or ride, the body and limbs should be rubbed, kneaded and pounded all over for from ten to twenty minutes—morning, noon and night—by some one who has strength to do it thoroughly.

VI. CLOTHING.—Wear flannel or silk next the skin, and dress comfortably warm. On retiring, change all the clothing worn during the day, so that it may be thoroughly aired for the following morning. Keep the clothing sweet and clean by changing every second or third day.

The bed should be thrown open on rising and the bedding well aired during the day, and the bed not made up till the patient wishes to retire. Good ventilation is very essential.

VII. MEDICAL TREATMENT.—This disease is attended with but little pain. Yet, little by little, the patient becomes more and more enervated, and soon paralytic symptoms show themselves in a weakened circulation, resulting in cold hands and feet, and prickling numb sensations in the extremities. As the disease progresses, there is often a tendency to fatty heart. All these conditions are greatly relieved by the drinks and rigid alimentation before given.

To aid digestion and assimilation, and to tone up the partially-paralyzed nerves, something like the following simple treatment will be a valuable auxiliary in the cure. Just before each meal, the patient should take a small dose of a good bracing tonic. Here the physician has a large range of remedies to select from, and should exercise his best judgment and knowledge in choosing such as will be best adapted to the case in hand.

Usually, in these cases, quinine is not well borne on ac-

count of its over-stimulating a very enervated heart. I will suggest a tonic which is usually borne well.

R Fluid ext. ladies' slipper.....	℥iv
“ “ trifolium pratens.....	℥iiiss
“ “ arbor vitæ.....	℥iss
“ “ anise seed.....	℥ss
“ “ witch hazel.....	℥iss
“ “ rosin weed.....	℥j

Oil anise.....gtt. x.

Oil menth. pipgtt. x.

M. S. Take a teaspoonful before each meal.

The tonic should be changed every three or four weeks.

R Pill pure pepsin (5 grains each).....No. xxx.

S. Take two pills immediately after each meal.

To tone up the heart and steady its beat, give

R Pil. digitalin ($\frac{1}{60}$ th gr. each).....No. xxv.

S. Take a pill on retiring.

Keep the bowels open once a day. If they are constipated, so that the hot water one hour before meals and on retiring, does not keep them sufficiently open, the simple aperient pill answers a very good purpose. Take part or a whole pill on retiring when necessary. The nervous feelings, and often oppressed breathing, with wakefulness, are usually relieved by the following pill:

R Pill ammonia valerinate (1 gr. each).....No. xxx.

Take one or two pills every half hour when nervous or wakeful.

For the weakness in back and paralytic feelings in limbs, one of Hall's electro-galvanic plasters, applied at night to the back, will be of service. Apply one night over kidneys; the next night let the zinc plate be on the spine, just below the small of the back, and the copper plate down on one hip, and the following night on the other hip. The fourth night apply it between the shoulders; the fifth night over kidneys, and so on, changing its position every night so as not to produce sores.

GENERAL REMARKS.—Remember that the medicines cure nothing; they simply aid in keeping the machine in good running order, while the cure is effected by the rigid alimentation—an alimentation freed as much as possible from all paralyzing and fat-forming elements. One of the most fertile

causes of fatty infiltration and metamorphosis in an organ, is the continued enervated or partially-paralyzed state of that organ. This so lessens the activity of the organ that proper nourishment is not brought to it; and to preserve its tissues from death and disintegration, nature infiltrates into its histological elements fat, and later in the history of the disease these elements undergo fatty metamorphosis, when the gland or part loses its independent organizing powers, and to all intents and purposes becomes a dead organ, and is no longer able to perform its function. The constant and long-continued fermentation of vegetable food, fruits and sweets in the stomach and bowels, keeps the digestive organs all the time filled with carbonic acid gas. This, after a while, so paralyzes the cells of the surfaces with which it comes in contact, that they lose their normal selective power, and begin to take up, little by little, and more and more, carbonic acid gas, vinegar, yeast, etc., which are carried into the circulation, and these reach every part of the organism.

The heart, liver, lungs, kidneys, spleen and brain are among the first organs to suffer. The organ that becomes the most paralyzed is the one that is the first involved by fatty infiltration, and later on, fatty metamorphosis. The organs that are the first and most liable to be paralyzed, are the kidneys and heart, the next the portal glands.

These states and conditions are but pages in the long history of results of local paralysis. We must look upon these as diseased states of tissues and organs which have been brought about by something we have been subjected to, through a long period of months, and perhaps years. It is not sufficient to look to weekly or monthly exposures for the cause, but to daily and hourly. In creating either healthy or diseased habits, the either healthy or pathological acts must be regular, frequent and long-continued, in order to become confirmed states of health or established conditions of disease. Here is the successful ground to stand upon. We must reach the underlying causes before we can cure. We may relieve and seemingly cure, without knowing or removing causes; but such relieving and curing is not permanent. We should remember that all these states

and conditions we bring upon ourselves by something we are doing daily and persistently. This wrong doing must be stopped; then we may use with advantage any means that will help to gradually bring back and establish healthy states and habits in the diseased structures.

ART. II.—**Subluxation of the Head of the Humerus without the Crucial Diagnostic Sign of Dugas—Reduction, etc.** By G. WILLIAM SEMPLE, M. D., Hampton, Va.

February 9, 1880, I was called at 3 P. M. to see W. J. S., a stout, muscular farmer, of active, laborious habits, of ordinarily excellent health, about 47 years of age. I reached him in an hour. Less than two hours before, he was standing with his right foot behind and his right advanced, with a long hand-stick in his hands. His left elbow was bent to an acute angle; his left hand in a semi-prone position, grasping the stick; his right hand pronated, holding it about 18 inches below; and on the lower end of the stick, which rested on the ground, rested partly the weight of a log, 13 inches or more in diameter, and $12\frac{1}{2}$ feet long. The log was partially supported by two other such sticks in the hands of two other men, who accidentally lost their hold, whereupon an immense weight was suddenly thrown on the stick he held. His right hand loosing its hold, a tremendous strain was thrown on the left hand and arm, by which the arm was suddenly jerked down and he was thrown down on his left side, and, he thinks, fell on his elbow. I found him suffering intense pain in the whole extremity, extending from the shoulder and axilla to the ends of the fingers—being most intense in the axilla, at the elbow, in the wrist, and palm of the hand and fingers—in which two last, pricking, tingling and numbness were greatly complained of. The elbow was a little everted and held back; the hand was held in the right over the median line, in a semi-prone position. The whole front of the arm and forearm was echymosed, and the shoulder much swollen. No projection on the dorsum of the scapula, in the axilla, or over the clavicle could be seen or felt; nor, in consequence of the swelling, could any depression under the acromion be seen, though I thought I could distinguish it slightly by pressure with the finger. The acromion and coracoid processes could be distinctly felt, and by pressure were ascertained not to be fractured.

Thinking, from the position of the limb and the character of the pain, that I had a luxation of the shoulder-joint to deal with, and the slightest motion of the limb being intolerable, I placed the patient under the full anæsthetic effect of chloroform, which was accomplished most readily after the full potations of whiskey he had taken voluntarily before I saw him. I called the particular attention of his brother to each step of my procedure, explaining the object of each to him. I first placed the elbow on the chest; there was some little resistance, but it was easily overcome, and the palm of the hand was placed on the opposite shoulder. I then subjected the limb to every natural motion of the shoulder, elbow and wrist-joints, which I found perfect, except the slight resistance to bringing the elbow to the chest. The hollow of the bent elbow was placed over the crown of the head; it was carried back in juxtaposition to the chest, extending at right angles to the chest, and the head of the humerus was subjected to free rotation. Suspecting fracture of the anatomical neck of the bone, attention was directed and every means adopted by myself and the brother to detect crepitation, but none could be felt or heard. Confident now that I had only a violent strain of every muscle, tendon and ligament to deal with, I suspended the use of chloroform (under the effect of which, by the use of only 3ij on a sponge, in a well-saturated, funnel-shaped cuff, he had been kept for more than half an hour); cold water was sprinkled on his face and a few snuffs of hartshorn given him. On partial restoration to consciousness, he expressed himself perfectly free from pain; but a half an hour afterwards, when fully restored, he said it was as violent as ever. Finding the easiest position to be reclining on his side with his elbow bent, carried slightly back, supported on a pillow with his forearm and hand resting on his chest, that position was adopted, and cloths wrung out of water as hot as could be borne, were applied, which he said were very grateful and soothing, and advised to be continued. The pain not abating, at 7½ P. M., ¼ grain of sulphate of morphia and ⅙th of sulphate of atropia were given by hypodermic injection over the deltoid; the sulphate of morphia was repeated in half an hour. At 9, he seeming to be in a sound sleep, I left, leaving one grain of sulphate of morphia, dissolved in four teaspoonfuls of water, one of which, if necessary to relieve pain and procure sleep, was directed to be given as often as once in two hours, and the hot applications ordered to be continued until my morning's visit.

I saw him again at half past 10 next morning. He had slept but a few moments after I left; had continued to suffer during the night, and though he had taken all the morphia, he had only snatches of sleep. Not being relieved by hot applications, cold ones had been applied, and been discontinued because they greatly increased the pain. The limb, from the shoulder to the fingers, was much swollen, and the hot applications, which also gave pain when renewed, were discontinued. Arnica was applied, and the limb rubbed frequently with liniment of camphor chloral. R. Camphor chloral, ʒij; linim. sass. liq., ʒiv, M; and morphia sulphate in $\frac{3}{4}$ grain doses ordered *pro re nata* every three or four hours. The bowels were also to be opened with castor oil.

Next morning the patient had gotten little rest, and was very nervous and unquiet, and the condition of the limb not much changed. Bowels had been acted on twice; no appetite; pulse, slow and full; temperature, 99.2°. Camphor chloral in thirty-drop doses was substituted for morphia, and local applications continued.

12th. Had slept somewhat more, but complaining of fullness of the head. Camphor chloral was discontinued, and tincture of Jamaica dogwood root in ʒij doses directed to be given every night and continued every four hours *pro re nata*. Condition of the limb much the same, but suffering not quite so great.

13th. Had taken but one dose of the tincture of dogwood, which procured four hours' good sleep. Swelling of the limb somewhat less, and continued to diminish until the 17th. The pain continued (though less) very great, but he got four hours' good sleep from the dose of Jamaica dogwood at night; his appetite improved, his bowels kept open, and he suffered less from nervous restlessness; the swelling had so greatly diminished as to permit a slight depression under the acromion to be seen, and in the presence of a gentleman of intelligence and unusually accurate observation, I placed the elbow on the chest, and palm of the hand on the shoulder.

Being undecided about the diagnosis, the next day I called on Dr. J. P. Hope. We agreed that there was probably a subluxation of the humerus—the joint appearing rather broad—though from the manipulations of the day before, it was too much swollen to distinguish the depression under the acromion which I had seen the day before. Fifteen minutes after the administration of about ʒiij of whiskey, he was readily anesthetized with chloroform by Dr. Hope. Taking hold of his hand and forearm, I brought his elbow

to his breast, and placed the palm of his hand on the shoulder, calling Dr. Hope's attention to it. Then, Dr. Hope supporting the acromion by pressure with the palm of the hand, I extended the limb at right angles to his body, when, under firm, steady traction, the head of the bone was felt by me to slip into place, and was both felt and heard to do so by Dr. Hope, who had his hand on the joint and his ear near to it. His elbow was brought down to his side, the forearm was flexed on the arm, and the head of the humerus pressed up by support at the elbow, which position (though he could not before tolerate), after being restored from influence of the chloroform, was found most comfortable to him. It was maintained in this position by Fone's bandage for fractured clavicle; but the pressure of the pad along the course of the brachial nerve could not be borne, and it was removed. The pain along the course of the nerves of the extremity continued too great to permit sleep, except by the use of anodynes, and the tincture of Jamaica dogwood root was taken nightly, giving four or five hours sleep. The application of the camphor chloral liniment was substituted by volatile liniment, and frequent dry frictions and passive motion were ordered. The latter giving much pain in the elbow, wrist and fingers, was not sufficiently practised, and by the end of the month these joints had become contracted and painful on motion. The passive motion of the shoulder was perfect; but on removal of support, the humerus dropped down and left a slight depression under the acromion, at once removed by pressing up the bone. This latter condition evidently depending on paralysis of the deltoid muscle, the $\frac{3}{10}$ th of a grain of sulphate of strychnia was injected into it every two or three days for three weeks, when (the bone being well supported, in the glenoid cavity, by muscular action) the injections were stopped, the bandages removed, and the patient advised to support the arm only when walking a distance and when riding, by a sling, to give the member all the active and passive motion he could, and to continue the frictions. In a short time, the pain in the elbow, wrist, hand and fingers was so much diminished as to permit sleep without the dose of anodyne, and it was discontinued voluntarily without inconvenience—it never having produced nervous restlessness in the intervals of its anodyne effect; and the appetite, digestion and regular action of the bowels continued perfect during the continuance of its administration.

The patient continues to enjoy excellent general health; and now, though there is still at times some pain in the el-

bow, wrist, hand and fingers, with some numbness and prickling and tingling of the latter, and the flexion and extension of all of these joints is perfect; yet the progressive improvement is constant, and the use of the shoulder-joint being perfect, there is good promise of a perfect recovery.

This case, at least as far as sublaxations of the shoulder-joint are concerned, comes in conflict with Dr. Dugas' universally-accepted crucial test for shoulder-joint luxation; and also with the ably-maintained opinion of Dr. Frank Hamilton, that a sublaxation of that joint is impossible. On stating this case to the accomplished Dr. J. Vankancilin Hoff, Assistant Surgeon U. S. A., he remarked that there was, he thought, certainly no crucial test for the luxation of that joint; nor was Dr. Hamilton's opinion correct—he having, several years ago, seen in the neighborhood of Omaha a similar case, which having remained several weeks unreduced, has never recovered. I also have a most painful personal experience that sublaxation is possible. When twenty-five years old, I had the right shoulder-joint luxated by a horse, whilst prostrate on my face, with his forefoot on the head of the humerus, and forcing it in the axilla. Being alone in a forest, suffering great pain, such as usually accompanies such accidents, and distinctly feeling the head of the bone in the axilla, I grasped a small tree, placed my feet against the tree, and with all my might pressing off at right angles, drew the bone into place with a most audible snap, and the pain was immediately relieved. I mounted my horse, after putting my hand in a sling, and taking my gun from leaning against a tree, gave the horse free reins to Williamsburg, three miles off, a distance he made in double-quick time. My much-revered old friend, Dr. John G. Williamson, bandaged up the limb for me, and gave the best advice—not to take off the bandage too soon; but as I had an engagement to visit my lady love in a neighboring county, with whom I anticipated many horseback rides, in disregard of his wise warning, I took off the bandages, and made the visit on horseback. In consequence, in a few days, a sublaxation inwards took place, which was attended by the same and equal pains as were suffered when the first accident occurred; but being immediately reduced by the pressure of my left hand against

the head of the bone, and having the same object in view, I disregarded the warnings of experience, and took no notice of the accident; and since, for more than thirty years, at least as often as twice a year, the same accident has occurred—sometimes from throwing, but most often from some slight effort with the hand pronated and the arm bent across the body. I have always reduced it quickly myself by taking hold of some stationary support, and drawing my body off at right angles, when pressure of the hand on the head of the bone failed. On two occasions, it occurred to me, when abed in my night clothes, and though suffering intense pain, I took time to examine the joint before a mirror. Only a slight projection of the head of the bone forward could be perceived. The accident has not occurred for the last ten years.

ART. III.—**Sulphate of Copper for the Eruption Caused by Rhus Toxicodendron, Rhus Radicans, etc.** By A. W. WISEMAN, M. D., Jerusalem, N. C.

During the last twenty years I have seen a vast number of remedies for the eruption due to rhus toxicodendron, rhus radicans, etc., recommended in all kinds of journals, newspapers, etc. I believe it is a rule in medicine that remedies for any disease multiply in proportion to their inefficiency; but it is because I do not remember seeing the remedy I am going to propose among those recommended that I now write this short article.

This class of plants seems to grow best in shady places, and it is here that their foliage seems to become darker and more luxuriant. Their poisonous action depends upon the idiosyncrasy of the individual poisoned; for some can handle the plants with impunity, while others suffer whenever they come within the range of the poisonous vapor that ever exhales from them whenever the sun's rays are shut off.

There is one thing about this eruption that does not seem to be very well known, and that is, when it is imperfectly cured it has a tendency to re-appear annually. This tendency, however, is not confined to this disease; for it was

well known among the early settlers of this section that some individuals, after recovering from rattlesnake bites, would suffer an annual recurrence of swelling in the bitten part. And I once knew a "reliable gentleman," who emigrated from Virginia to North Carolina, and who was still living at last accounts, who said that one of his brothers was bitten by a mad dog; and ever afterwards, when that time of year would come around, the cicatrix would burn and itch and swell for a few days, and then the symptoms would pass off for another year.

But for the treatment of this eruption I have never used but one remedy, and I have had less trouble with it than with skin diseases generally; and it is about the only remedy that I use empirically. It is the sulphate of copper. It may fail in some acute cases, but then this eruption hardly ever comes under the eye of the physician until the patient has tried "salt water," "night shade and cream," "sugar of lead," etc., and consequently the eruption has reached the "mattering stage," as it is called. I have no particular strength for the solution. I always tell the patients to commence with just enough to color the solution, and gradually increase the strength until it produces a slight stinging, and to apply it three or four times a day.

This treatment was not based on any direct medical teaching, but was suggested by the following occurrence, which took place in my immediate neighborhood when I was a child. Some of the parties being near relatives, and the thing creating a sort of sensation in the neighborhood, it made a lasting impression on me. The following are the facts as gathered: A negro man was mowing grass in a meadow on a very hot day. In the meadow there stood a willow oak tree, and beneath its shade the poison oak had overspread the ground and mixed with the growing grass. The mowers cut all down together. This plant, when cut, emits a milky juice, which soon darkens and dries into an inspissated extract, and I suppose that this extract contains the poisonous properties of the plant. At all events, this negro pulled off his clothes in the evening and wallowed over the swathes of new mown hay and poison oak cut down

together, under the shade of this tree—his skin being softened by sweat. He was poisoned all over the surface of his body. He became a repulsive object. A foul fluid issued from his skin. His disease resisted a routine of remedies tried by one of the most celebrated physicians in that section. This physician worked on the case for over twelve months, I believe, without any apparent benefit. The owner of the negro at last, despairing of his recovery, sold him for three hundred dollars, though he was a young, able-bodied slave. The owner's sister, who was a widow, bought the negro. She sent to a neighboring store and bought *five cents worth of blue stone*, and it cured the negro well and sound.

When I was a child, about 7 years old, I got poisoned badly by picking up peaches under some trees that grew on the north side of a fence, a favorite place for these plants to grow. My hands swelled until I could not close my fingers. My face was swollen until my eyes were nearly closed. No physician was called in; but my mother, who knew all the facts in the above story, sent for some "bluestone" in the utmost confidence. She used it as above indicated, and it cured the eruption. Since that I have avoided these plants, and though it has been nearly forty years since, there has been no return of the eruption.

Clinical Reports.

The Effects of Eighty-Three Grains of Opium Antagonized by One-Quarter of a Grain of Atropia. By J. W. BRYANT, M. D., Petersburg, Va.

I was called, about 8½ P. M., *October 6th*, to see a man who, the messenger said, "had taken laudanum and gone to sleep, and could not be aroused." I went at once, and found the friends of the patient trying to walk him about the yard. Upon inquiry, I found that he had taken about 2½ ounces of laudanum at 6 P. M., and that no one knew of it for some time after. An emetic of mustard and water had been given before I saw him, but had had very little effect. The man was thoroughly narcotized, unable to stand or hold up his head, countenance pallid, extremities cold, and entire body bathed in perspiration. Any motion would bring on tetanic

rigidity of all the muscles; teeth and hands were tightly clinched, head thrown back, arms acutely flexed, and the gastrocnemii muscles were so contracted that the man would stand on his toes. If left quiet, relaxation would come on in a few moments. The pupil (he had but one eye) was contracted almost to the size of a pin point, and, of course, was insensible to light; pulse, 55, feeble and irregular; respiration smartly below the normal, and becoming more and more embarrassed.

I at once ordered a solution of atropia, 1 gr. to \mathfrak{z} ss, and while waiting for it attempted to repeat the emetic, but failed entirely to open the mouth, or to get him to swallow anything whatever. The man was entirely unconscious, and could only be slightly aroused by severe flagellation, when he would moan slightly, make one or two efforts to move, and again sink into utter unconsciousness.

All attempts at emesis having failed, and not having a stomach-pump, I sent for Dr. P. H. Lightfoot, of this city, to bring his galvanic battery, and in the meantime had to rely entirely upon the antidotal effects of atropia. It having been brought at 8.25, I gave, hypodermically, 10 minims ($\frac{1}{24}$ th of a grain) of the solution, and closely watched the effects, from time to time using the switch, and keeping him moving as well as we could. At 8.45, there being no visible effects from the antidote, the dose was repeated. Soon after, the pulse arose to 70, and was more regular, respiration about the same rate (15); no effect upon the pupil as yet. At 9.10, a third dose of atropia was given. About this time the patient had a severe ague, which lasted fifteen or twenty minutes. The skin became dry and husky, muscles not so rigid except those of the face and neck. At 9.45, the pupil was slightly dilated, but answered very slowly to the atropia; pulse, 85, more regular, but feeble; respiration, 12. At 10 o'clock, the fourth dose of atropia was given. At 10.30, the pupil was about the size of a duck shot; pulse, 95; respiration, 10.

At this time, Dr. Lightfoot (who was out when the messenger went for him) came, and we immediately applied a strong interrupted current over the pneumogastric nerve, stopping a little while every ten or fifteen minutes. Under the electric current, the respiration, which was becoming stertorous and labored, was slightly improved, but would fall again as soon as the battery was removed. At 11 o'clock, a fifth injection of atropia was given. At 11.45, the pupil was about the size of a buck shot; pulse, 110, regular but

more feeble; respiration varying from 10 to 7. At 12.10, the sixth and last dose of atropia was given, and as there was no visible effect from the electricity, we concluded to stop operations. At 12.30, the pupil became widely dilated and insensible to light; pulse, 125, but very feeble; respiration varying from 9 to 6, and several times being as low as 4 to the minute.

I neglected to state that about 11.30 we gave him $\bar{5}$ ss of brandy, hypodermically, which slightly increased the volume of the pulse.

About 1 o'clock at night we left him, not knowing whether we would find him dead or alive the next morning.

At 9 A. M., on going to see him, we were surprised to find him lying awake, entirely conscious, but very nervous, and in the condition of a man who had been on a big spree. Pulse, 110: respiration a little above the normal; pupil widely dilated. We were told that he awoke with a bound from the bed about 7 o'clock in the morning, and asked for some coffee, drank several cupfuls, and had not slept any since. We ordered a drink of whiskey, more coffee, and a solution of—

R _x Chloral	$\bar{5}$ ij
Potass. bromid.....	$\bar{5}$ iss
Tinct. digitalis.....	$\bar{5}$ iss
Aqua.....	q. s..... $\bar{5}$ iv

M. S.: Tablespoonful every three hours.

I saw him again at 2 P. M. More quiet, and had slept some. The chloral solution was continued. About 7 P. M., I was sent for in haste. The messenger said that the man was crazy; had jumped out of bed, and had run several hundred yards up the street before he could be caught. I found him noisily delirious, extremely nervous, and attended by spectral hallucinations; pupil widely dilated; pulse, 110; respiration, 20, and a "scarlatina-like rash" over the body. No change made in treatment.

Oct. 8th. Still delirious, but not quite as nervous as during the day before. He had slept some during the night; pupil contracting slowly; pulse, 90; respiration normal. Bowels and bladder both emptied during the night. Chloral continued.

Oct. 9th. Not as noisy as the day before. Pupil more contracted, and, for the first time, responsive to light.

R _x Hydr _g . chlorid. mite	gr. x
Ext. hyoscyami.....	gr. ij •

M. Make pills No. ii. S. To be taken at once.

Chloral given when necessary.

Oct. 10th. Rational, except at times, when he would be very talkative and nervous. Pupil almost normal; pulse, 80; bowels moved several times during the night; rash entirely gone; skin a little rough and dry. From that time he steadily improved, and now (*Oct. 16th*) is entirely well, except a fractured rib, which he received from a fall when he ran out of the house.

Remarks.—The patient took on an empty stomach, at the lowest estimate, $2\frac{1}{2}$ ounces of laudanum, or say 83 grains of opium. Two hours passed before anything was done for his relief except the mustard which his brother gave him, and which had little or no effect. Failing to get free emesis, and not having a stomach-pump, I had to rely entirely upon atropia. Sixty minims of the solution, or one-fourth of a grain of the sulphate of atropia, was given hypodermically in the space of four hours. When it was given, the man gave marked symptoms of opium narcosis, viz., tightly-contracted pupil, slow and labored respiration, and slow and weak pulse. The first perceptible effect of the atropia was after the second dose, when the pulse arose to 70; after the third dose, the pupil began to dilate slowly; but not until after the sixth dose was the pupil widely dilated. The pulse continued to rise until from 55 it was 125. There was no effect upon the respiratory centres.

How the antidote acted as an antidote, from my limited experience I would not undertake to say, unless it was by stimulating the sympathetic nerves, it directly and entirely counteracted the poisonous effects of the opium upon the voluntary nervous system; but that some power was interposed to prevent the full toxic effect of such a large dose of opium, is proved by the fact that the patient slept such a short while (12 hours) when he was aroused so fully and entirely, and is now alive. The delirium was, I think, entirely due to the large dose of atropia; for as the pupil contracted and the rash disappeared, the delirium subsided. No constipation followed the opium, and no urine was voided in twenty hours after it was taken, and then only the usual amount.

In regard to the electric current, I scarcely know what to say, since the benefit to be derived from it in almost any case is always a mooted point; and with my limited experience I

may not have been able to recognize its effects. The respiration was slightly improved at first, but after one or two applications there was no visible effects. I think it well enough to use both the remedies in such cases, and if the battery does nothing more, it will have the effect of a family placebo, if I may use the term, and give the appearance of doing something, as the friends of the patient will be urging you to do, while you await the effects of your antidote. The coffee also acted upon the sympathetic system of nerves, and thus was an adjuvant to the atropia.

Opium Poisoning Successfully Treated by Atropia Hypodermically. By J. W. BREEDLOVE, M. D., Greenwood, Ark.

Cases bearing upon the antidotal properties of atropia and morphia are of special interest. I therefore make no apology for recording the following case:

I was called on Monday afternoon, March 1st, 1880, about 4½ o'clock, to see Mrs. K., aged 67 years, and found her with a severe chill. I gave her 20 drops of chloroform at once, and directed some warm tea to be given as a drink. I made out two powders of calomel and Dover's powders (five grains of each to the powder)—one to be given as soon as the hot stage came on, and the other powder in three hours, promising to see her again after supper.

About 7 P. M., just as I was about to start, her husband came, laboring under great excitement, and told me he thought he had made a mistake in giving the medicine, as his wife was feeling very queerly, and could with difficulty keep awake. On inquiry, I learned that he had that afternoon purchased 25 cents worth of morphia from the drug store before calling me in, and had given his wife a small dose of it to relieve a pain in the back, from which she had suffered all day, and that he had placed the two purgative powders on the same shelf with and near the package of morphia, and had given the latter by mistake for one of the former.

When I arrived, at least a half hour had elapsed since taking the morphia, and I found the symptoms of narcotism painfully evident. I will here state that the druggist informed me that he had put up between 8 and 10 grains, all

of which had been given, less the small dose given in the afternoon. I at once gave an emetic dose of salt and mustard (both being at hand), followed by copious draughts of warm water, with the two-fold object of diluting any unabsorbed poison, and facilitating emesis. In about fifteen minutes (no vomiting having occurred), I gave about 30 grains ipecac, and this, with the aid of titillation of the fauces, produced free vomiting in about five minutes more. The peripatetic and perturbing plan was then adopted, as also the free use of strong coffee, and cold water applied to the face and head.

At 8 P. M., the narcotism growing deeper and the symptoms becoming more alarming, I injected, hypodermically, the $\frac{1}{96}$ th grain of atropia; in a half hour, the $\frac{1}{48}$ th grain was administered, and at 9 $\frac{1}{2}$ and 11 P. M. this dose was repeated. At 1 $\frac{1}{2}$ A. M., finding her symptoms no worse, I lay down, with strict injunctions to the attendants not to relax their efforts to keep her awake—continuing the use of strong coffee and cold affusions, at the same time assuring the patient that her safety depended on her not giving way to the desire to sleep, thereby securing, to some extent, her co-operation. At 4 $\frac{1}{2}$ A. M., I got up, and, much to my relief, found the symptoms much improved—it requiring but little continued effort to attract her attention. At 8 A. M., she had so far improved that I acceded to her request to lie down and take short naps. Not until after the administration of the last dose of atropia, did the pupil begin to manifest its mydriatic influence. From this time her improvement was progressive, but convalescence was slow, owing to extreme nervous prostration.

It will be noted that I commenced with a minimum dose of atropia. This I did because I thought that some of the poison had been thrown off by the free emesis which took place about 45 minutes after taking the morphia. I had determined, however, to push the dose had the symptoms progressively advanced in severity—remembering the report of a case of poisoning by opium in the *American Journal of Medical Sciences*, by Fothergill, wherein the patient had been rescued from the very jaws of death by the administration of one grain of atropia hypodermically. Dr. Smith, who was in attendance on Dr. Trask, of Astoria, poisoned by taking six grains of morphia by mistake for quinia, states that his experience leads him to believe that the $\frac{1}{32}$ d or $\frac{1}{24}$ th

grain of atropia will antagonize the effects of 1 grain of morphia. (Vide Flint's *Clinical Medicine*, where the case is reported in full.) Dr. Bartholow suggests $\frac{1}{120}$ th grain as the initial dose of atropia, to be repeated twice at intervals of 15 minutes. In the above case, it will be seen that the patient took nearly the $\frac{1}{13}$ th grain of atropia in the four hypodermic injections. No symptoms of atropia poisoning manifested themselves subsequently.

Abscess in a Congenital Fatty Tumor—Fatal Result, Possibly due to Aspiration. By JOHN D. SCOTT, M. D., D. D. S.

April 21st, 1880. Mary Fannie Ritter, aged nearly 5 years, has been sick two weeks. Her abdomen is swollen and tense, with little tenderness and no fever. She was vomiting; bowels loose; skin mottled; tongue coated grayish white; pulse nearly natural. Just before she was taken sick, she fell on the edge of a plank, striking the site of the right lobe of the liver. She had from birth an unusually large abdomen, and had been the stoutest and fattest of the family. I ordered a warm poultice to the abdomen and a warm bath up to the stomach. *R.* Calomel, 2 gr.; nitrate of potash, 2 gr.; Dover's powders, 2 gr.; gum camphor, 1 gr.; cinnamon, $\frac{1}{2}$ gr. *M. S.:* Take every 4 hours until 4 doses are taken. Castor oil \mathfrak{z} ss in the morning.

April 22. Abdomen softer; bowels well moved—a large quantity of bile in discharges. Castor oil, \mathfrak{z} ss in the morning.

April 25. Vomiting again; same prescriptions repeated.

May 1. Abdomen, legs and face swollen; tongue coated; skin cold; anæmic; appetite good; bowels in a natural state; urine scanty; hardness in the region of the right lobe of the liver. I ordered pumpkin seed tea, \mathfrak{z} ss every 3 hours during the day as a diuretic; tincture of iodine to be painted over the liver every night, and a poultice of warm mush, with hops in it, to be applied over the region of the liver at bedtime. *R.* Calomel, 2 gr.; nitrate of potash, 2 gr.; Dover's powders, 2 gr.; podophyllin, $\frac{1}{4}$ gr. *M. S.:* Take every 6 hours until 5 doses are taken. Three hours after last one take castor oil \mathfrak{z} ss.

May 7. Hæmorrhage from nose severe. There is a large, hard tumor in the right hypochondriac region, like an ab-

scess. Still anæmic; appetite good; feeble, small pulse, 90 to the minute. Iodine and poultice continued, with tincture chloride of iron, 4 drops every three or four hours until hæmorrhage ceases; afterwards to be repeated three times a day.

May 9. Symptoms more favorable; prescription continued, with castor oil \mathfrak{z} ss in the morning.

May 11. Swelling gone from feet; countenance more cheerful; medicines continued.

May 14. No swelling except in bowels; no pain; appetite good; tongue nearly clean.

May 16. All symptoms more favorable; swelling going out of body.

May 24. All symptoms favorable. Iron and iodine only continued.

May 25. Right side of abdomen more swollen; other parts of abdomen softer. Iodine does not agree with stomach. Tincture of muriate of iron continued; tincture of iodine to be applied to abdomen; poultice or not, according to pain in abdomen.

May 31. Abdomen and feet swelling rapidly; abdomen painful; iodine making skin sore; still anæmic, and the patient is now stupid. Castor oil, \mathfrak{z} ss, to clear bowels. Iron and iodine left off. Tincture of iodine recommended in 4-drop doses, internally, three times a day. Pipsissaway tea, \mathfrak{z} ss every 6 hours.

June 4. More swollen than ever over right side of abdomen, which is very hard, red, sore and painful. Nose inclined to bleed again; no jaundice; eats heartily, and looks more natural out of eyes; pulse 100; iron recommenced; poultice to be applied to hard part of abdomen every night; iodine left off; and tincture digitalis, sweet spirits nitre, and tincture cantharides, $\overline{\text{aa}}$ \mathfrak{z} ij. M. S.: Dose, half a drachm every six hours. Castor oil, \mathfrak{z} ss every morning, if necessary to keep bowels open. All other prescriptions left off.

June 13. Swelling in abdomen and feet increasing; weaker; losing flesh rapidly; passes immoderate quantities of urine. Dr. Ellet now saw her, and we agreed it was enlargement of the liver, and made no suggestion beyond what I had been giving, except calomel 1 gr., and elaterium enough to make it operate next morning, and vinegar of squills in the mixture instead of spirits of nitre. Same continued, with calomel 1 gr., elaterium 1 gr. at bedtime each night. Former mixture, except vinegar of squills instead of spirits of nitre, continued.

June 23. Swelling all over body except arms; abdomen

enormously swollen; appetite good; tongue almost clean; peevish; pulse tolerably good; can walk some. Same mixture continued; quinine, $\frac{1}{4}$ gr., added to powder; podophyllin, $\frac{1}{2}$ gr., substituted for elaterium, and bitartrate of potash, heaping teaspoonful every morning; poultice to right side of abdomen every night; iron to be given or not, according to appetite.

June 26. Has been bleeding at the nose again; swelling not so tight, except in the right side of the abdomen. Iron had been recommenced, and other prescriptions continued.

July 9. Somewhat improved. Same medicines continued, except powder, every second night.

July 19. Swelling considerably reduced.

July 18. Swelling less in all parts; appetite good; more animation in eyes; urination not so free. Take powders every third night, and wild carrot seed tea one ounce every six hours.

July 27. Breathing bad—cannot lie down; pulse 140; stomach hot; appetite feeble; very pale; abdomen harder and knotty; very weak.

July 30. Swelling less; breathing better; looks more natural; notices and eats; pulse 90; some splashing sound on percussion under umbilicus, but sounds very dead and solid all over right side of abdomen. Tympanitic sounds, not very loud, over the left side of abdomen. Some soreness in the stomach. Feet and legs considerably less swollen. Omit carrot seed tea.

August 5. Dr. M. A. Wilson called in consultation. He thought the tumor ought to be aspirated. Her abdomen was not swelled so much—softer from sternum down to umbilicus and groin, and I thought some fluctuation was noticeable to the left of the umbilicus. She bled some at the nose yesterday; appetite good; can lie down; feet and legs still swelled some; can sit alone. Prescriptions continued, except calomel in powder.

Aug. 10. Condition nearly same; some purpura on abdomen; tongue clean.

Aug. 13. Drs. J. Farmer and M. A. Wilson met me in consultation. We concluded to aspirate. We gave her chloric ether, and introduced the aspirator $2\frac{1}{2}$ inches to the right of the umbilicus, and drew off a little bloody serum. We introduced it six inches to the right and three inches below the umbilicus, and drew off some black, bloody serum, some black blood and a trace of pus. After the needle was withdrawn, serum constantly ran out of the first made punc-

ture. Half an hour later, she was in collapse. I held spirits of ammonia to her nose and she revived. I then gave alcohol, $\mathfrak{5j}$, aromatic spirits of ammonia, $\mathfrak{5j}$. Ten minutes later, she fainted, and died instantly. There was no groan or struggle.

A *post mortem* twenty hours after death showed the following, viz.: External appearance same as before death, except that the lower part of the abdomen was not so large; serum still oozing out of lower aspirator puncture. I opened the abdomen by the usual crucial incisions. I found serous effusion in the cellular tissue of the walls of the right side of the abdomen. A large quantity of bloody serum was found in the peritoneal cavity, and a double hands full of clots of blood as black as ink, in the right side of the abdomen at the lower aspirator puncture. There was a large fatty tumor 12 inches long and 5 inches in diameter, reaching from the diaphragm to the bladder, rounded at the upper end, terminating in a conical point at the lower end, nearly round, but slightly flattened in front and behind, weighing $5\frac{1}{2}$ pounds. It was covered with mucous membrane. The outside was of a fiery red color—showing it was in a state of high inflammation. It occupied nearly the whole of the abdomen, on the right side of the middle line. It seemed to have grown from the back to the right of the spine, and was firmly attached by fleshy bands from the upper end, about two thirds of its length and half its diameter. The vena cava descendens entered it at the posterior part of the upper end, but could not be traced through it as a common trunk, but seemed to branch out into six large veins, which were distributed equally all over the front part; these branches converging at the lower end, came together again and formed the common trunk below. The blood in the veins was nearly as black as ink. The diaphragm was considerably elevated, and the liver was pushed over to the left side, and only about two inches of the right lobe passed over the middle line of the abdomen. This portion to the right of the gall bladder was attached to the upper end of the tumor by adhesive inflammation, a patch about two inches in diameter. After it was severed from the tumor, by using a magnifying glass, pus might be seen oozing from the cut surface of both tumor and liver. The liver here was of a steel-gray color. The right lower corner of the liver, about one and a half inches wide, was darker than natural. The liver otherwise had a natural appearance. The stomach and bowels were all in the left side of the abdomen. The colon, small intestines

and under part of the stomach, to a limited extent, were firmly adherent to the tumor, by adhesive inflammation, for two-thirds the length of the tumor. The peritoneum was inflamed and red wherever attached to the tumor. The stomach and bowels were otherwise healthy, and looked as though they had performed their functions unobstructed. I dissected the tumor out carefully from all the surrounding tissues, without cutting its surface, and then proceeded to dissect it. The right kidney and pancreas were completely surrounded and imbedded in it—occupying their natural places. The kidney was not adhering to it, and seemed to be performing its functions, not inflamed, but a little larger and paler than natural. The pancreas seemed to be amalgamated with it on its surface—inflamed, and an abscess in the center of it, and larger than natural. The anterior portion of the tumor inclined to be fleshy; posterior portion, fatty throughout. It was made up mostly of oval masses the size of a hen's egg, with cellular tissue between them. There were a few cavities filled with serum in the posterior portion, and but little pus. In the anterior portion, near the lower end, was a large abscess; and the pus was nearly as thick as lard. There was a deposit in the anterior portion, near the lower end, as large as a partridge egg—oval, and looked like rotten cheese. There were two bloody spots where the aspirator was introduced, the size of half a dollar, reaching from the surface to the center—respectively one-third and two-thirds from upper end. Pus, to a limited extent, was scattered throughout all the cellular tissue of the tumor. There was a large abscess in the upper end of it, and the bloody pus in it was of the consistence of molasses.

Conclusions.—1. Inasmuch as she had always had an uncommonly large abdomen, the tumor had probably existed from birth.

2. As she had always been fat and stout before being hurt, the tumor would never have hurt her had it not been injured by falling across the middle of it on the edge of the plank.

3. When bruised, it inflamed, swelled, and, in the usual way, developed abscesses in several places; and the pancreas being attached, shared its portion of the disease.

4. When enormously swelled, it caused pressure on the veins, returning the blood from the lower limbs, and hence their dropsical condition.

5. The bloody serum found in the peritoneal cavity came out of the large quantity of blood poured out into the peritoneal cavity, which formed the large clots found there; and

consequently, there was no dropsical effusion in the peritoneal cavity before.

6. The blood found in the peritoneal cavity was poured out from one of the large veins on the front of the tumor, which was pierced and wounded by the point of the aspirator.

7. The sudden death of the child was caused by hæmorrhage into the peritoneal cavity immediately after the aspirator was withdrawn.

8. The serum oozing from the wound made by the aspirator, came from the serous effusion in the cellular tissue in the walls of the abdomen outside of the peritoneal cavity.

9. I would, in conclusion, caution all aspirateurs not to aspirate until they are sure they know into what kind of tissue they are going to stick the point of the needle.

Correspondence.

Dr. Parvin on Remittent Fever of Puerperal Women.

Mr. Editor,—The reclamation made in your October No., 1880, in behalf of Dr. O. F. Manson, by Dr. Hugh M. Taylor, has greatly interested me. From that reclamation, it appears that the malarial puerperal fever, so designated and admirably described by Dr. Fordyce Barker in 1880, had already been recognized and delineated in a contribution to the *Virginia Medical and Surgical Journal*, by Dr. Manson, in 1855, under the name of remittent fever of puerperal women.

So far so well. But were there not heroes before Agamemnon? As early as 1775, Dr. Butter wrote upon "puerperal remittent fever."* In his description of the disease, Dr. Butter says: "There is an irregular, feverish exacerbation once a day, and sometimes oftener. This paroxysm is preceded by a violent rigor, much oftener by a chilliness without tremor, and sometimes the hot fit comes on without any sense of coldness. These exacerbations are usually terminated by sweats, which are sometimes partial, sometimes

*See Sydenham Society's *Diseases Peculiar to Women*, 1849.

general, but never critical, and tend more to debilitate than relieve the patient. * * * The length of the fever is various; sometimes it terminates in a week or ten days, sometimes it lasts three, four, or five weeks, and, in some severe cases, much longer." Surely this disease was not peritonitis, nor septicæmia, nor metritis, nor pyæmia, nor any other form of disease usually known as puerperal fever.

But let me refer to two authorities of the first half of the century:

In Blundell's *Principles and Practice of Obstetrics*, London, 1834, the author has several pages devoted to "hidrotic fever." Of hidrotic fever, he mentions seven varieties, and of one of these, which he terms the lingering hydrosis, he remarks that "the patient is liable to be assailed with those chills and heats with which the disease opens. These sometimes return at irregular intervals of a few hours; in other cases, observing for a time the quotidian period; so that for several evenings in succession—say five or six—she may be attacked with creeping sensations, slight chills, followed by febricula restlessness, and a night without sleep. The whole disease will begin sometimes as early as the third day." I think a practitioner of to-day, at any rate, an American practitioner, would most probably very promptly cure a case of Dr. Blundell's hidrotic fever, where such periodicity was observed, or a case of Dr. Butter's puerperal remittent fever, by anti periodic doses of quinine.

But one more authority: Burns (*The Principles of Midwifery*, seventh edition, London, 1828), has a chapter upon "ephemeral fever or weed, and remittent fever." In his description he remarks: "The paroxysm continues for some hours, and then may completely go off, not to return again. But in other cases, it recurs daily for a length of time, being always preceded by a cold fit, and often with a pain in the back; and sometimes the fit begins regularly one or two hours sooner every succeeding day. It is more favorable when the fit postpones. In other cases, after one or two distinct paroxysms, the fever assumes a more continued form, or the exacerbations are not preceded by distinct chills."

Again, Burns says in reference to the treatment: "When

the fits recur, we may sometimes check them by giving an opiate, with ether, just before the expected accession," etc. It seems to me that the description, no less than the cure, points to the malarial puerperal fever of Barker, and the remittent fever of puerperal women of Manson.

I had intended saying a few words as to the general and long recognition of this malady by old practitioners of the West, with whom I have conversed on the subject—one of them stating that he had known it and treated it with anti-periodics more than forty years, and especially as to the therapeutics, but my communication is already longer than intended.

Yours sincerely,

THEOPHILUS PARVIN, M. D.

Indianapolis, Ind., Oct., 1880.

**Reply to Dr. Parvin—Dr. Manson's Claims to the Discovery
Re-asserted by Dr. Taylor.**

Mr. Editor,—We thank our distinguished correspondent for his interesting and courteous letter; but we feel confident that on reconsideration he will agree with us that the claims of Dr. Manson as the discoverer of the peculiar phenomena presented by malarial fever in lying-in women, and the first to lay down its proper treatment, are by no means diminished thereby.

The first author cited as having described a disease resembling that recorded by Dr. Manson, is Dr. Butter, of England. According to Gooch,* whose work is clearly referred to by Dr. Parvin, we are informed that "puerperal fever was prevalent in Derbyshire and the adjacent counties between 1765 and 1775, and was described by Dr. Butter, of Derby. Dr. Butter described the disease as genuine "puerperal fever." Dr. Parvin is mistaken in stating that Dr. Butter termed it "puerperal remittent fever." On the contrary, he thought it to be the same as the London disease described by Dr. Clarke, as will be seen further on. His opinion was that bleeding ought never to be resorted to in this disease, *unless* when complicated with in-

**On Some of the Most Important Diseases Peculiar to Women, etc.* The New Sydenham Society edition, London, 1879, pp. 3-5.

flammation, and even in these cases bleedings of three ounces were sufficient; that the best remedy was *ten grains of rhubarb* and *ten grains of cordial confection* every day till the stools became natural; and that this mode of treatment never failed. He gives several cases, all of which recovered." "In 1787, that is, about ten years after Dr. Butter wrote, a puerperal fever was prevalent and fatal in London, and was described by the late Dr. John Clarke. It generally began on the second or third day after delivery, and terminated fatally in a week, sometimes as early as thirty-six hours. Its essential symptoms were pain and tenderness of the belly, with a rapid pulse. As the disease advanced, the milk became suppressed, the belly large, the breathing short, the pulse quick and weak. The appearances, on dissection, were those of inflammation in some parts of the viscera of the abdomen; but this was never extensive, and sometimes there was none. The effusions of inflammation, however, were very abundant; they often amounted to several pints, and appeared to be pus and lymph, mixed with serum. The surfaces of the viscera were coated with lymph, but the peritoneum underneath was not red. The interstices between the viscera were filled with masses of lymph, which formed a cast of their shape. Of the patients attacked with this disease, *more than two-thirds died*; *bleeding was injurious*; *leeches to the abdomen were useless*; *emetics were hurtful*; *bark and cordials, though indicated by debility, were INEFFICACIOUS.*" * * * "Now compare," Dr. Gooch continues, "the accounts which Dr. Butter and Dr. Clarke have given of the results of their practice. The former (Dr. Butter) seems to have *lost none of his patients*, and found a *daily dose of rhubarb and cordial confection a never-failing remedy*; the other (Dr. Clarke) lost more than *two-thirds* of his patients, and *nothing seems to have done any good*. What can explain this contrariety of statement? A perusal of their pamphlets at once solves the mystery; *they are talking about two different diseases.*" "That described by Dr. Clarke was a *genuine puerperal fever*, accompanied by an affection of the peritoneum, which occasioned the effusion of lymph and serum; that described by Dr. Butter is quite different. Its ordinary duration was from ten days

to five or six weeks. Whoever is familiar with the *tremendous disease* which I am considering, and knows that the patient is either *dead* or *safe* at the end of a week at *longest*, will instantly perceive that a disease so protracted cannot be the same; and a perusal of Dr. Butter's cases leaves *no doubt on the subject*. *It was a slow, remittent fever, NOT attended by ANY affection of the peritoneum*. Its CHIEF symptoms were *sleepless nights, great depression of spirits, a quick pulse, one or two exacerbations of fever every day, and a very disorderly state of the alimentary canal*. "I have repeatedly seen it," Dr. Gooch continues, "but never as an epidemic; and though it lasts a *long* time, I believe it *never* kills. Dr. Butter imagined that this fever, *which he never failed to cure*, was the same disease which he describes as so fatal in London." This is all the information we have in regard to the mild, benignant form of disease described by Dr. Butter more than a century ago; but it is sufficient to sever it entirely from any connection with the remittent fever of puerperal women of Manson, described in 1855, and whose faithful account is corroborated by Dr. Barker, who, doubtless, without acquaintance with the essay of Dr. Manson, again delineates the disease in 1880. It is true that Butter's disease was a "*slow, remitting fever*," but it was not attended by an affection of the *peritoneum*—but on the other hand with a very *disorderly state of the alimentary canal*, and cured by daily doses of "rhubarb and cordial confection."

We also call the attention of Dr. Parvin to the fact that the patients experienced *one or two* exacerbations of fever *every day*; and observe that whilst *two* exacerbations of fever per day are often observed in continued fever, yet they are *rarely* if *ever* observed in *malarial fever*; indeed, the presence of *two* exacerbations of fever in one day were considered by the celebrated Cullen, and Good and Parr as a certain means of diagnosis between continued and periodical fevers. The disease described by Dr. Butter was evidently a mild type of typhoid fever, attended, as that disease is usually, with a "disorderly state of the bowels," a *slow* remitting fever, and running its course in six weeks. How different from the disease described by Manson and Barker—a disease

of *rapid progress*, of *fatal proclivity*, attended with intense fever and all the symptoms of peritonitis, and requiring the most heroic practice to rescue the patient from death. How many women in childbed would survive an attack of malarial fever of six weeks' duration, treated with rhubarb and cordial confection? From these considerations, it is not surprising that Gooch, one of the ablest writers of his day, and of whom in his celebrated edition, Dr. Robert Ferguson declares that "up to Gooch's time *nothing which could satisfy was known as to puerpeal fever*," should utterly reject Dr. Butter's cases as those of "genuine puerperal fever," or as resembling it.

The next writer cited by Dr. Parvin as describing the disease resembling Dr. Manson's, is Blundell. We have not the edition of 1834, quoted by our correspondent, but we have before us the edition of 1832. In this, we have been unable to find anything concerning, or even the name of, "hidrotic fever;" but accepting the symptoms as quoted, we have only a simple febricula with irregular accessions in some cases—in others, recurring daily, with no symptoms, either primary or symptomatic, pertaining to peritoneal inflammation. Blundell, however, gives a concise description of puerperal fever. He nowhere states that it bears any resemblance to remittent fever, nor indicates that the former might be mistaken for any other disease. In regard to the treatment, *there, however, is something germane to our subject*. He states that in the malignant form, *bark* and other *tonics* have been recommended in *large doses* by Dr. Clarke, *but not much to be depended on*; for even in his hands, *the bark was not attended with any very encouraging success*. "Indeed," he adds, "in this form of the disease, *do what you will, the patient dies*"—a very discouraging prospect. How different from the results of treatment of the disease inaugurated by Dr. Manson in 1855, and whose potency has been so well attested during the present year by Dr. Barker and others.

It will only be necessary to say a few words in regard to the third and last writer quoted by Dr. Parvin, viz.: Burns.*

**Principles of Midwifery, including Diseases of Women and Children.* Philadelphia, 1817.

We might content ourselves by stating that Burns himself, although giving an excellent description of puerperal fever, we feel assured never intended that his ephemeral fever should be confounded with any fever attended with the symptoms and signs of peritoneal inflammation, or, indeed, any other grave disease. "The ephamera or weed, as it has been called," he states, "is a fever usually of short duration—the paroxysm being *completed generally* within twenty-four and ALWAYS *within forty-eight hours*; for if it *continue longer*, it *becomes a fever of a different description*." And again he states: "It is distinguished from symptomatic fever arising from local inflammation by the absence of the *particular pain* and other *specific* symptoms which attend these fevers." And again: "If derangement of any organ should take place by the recurrence of this disease, or during the course of a first attack, it must be treated on general principles; and it is to be recollected that the *nature of the complaint is now changed*, and the *organ* which is *disordered* elaims our *chief attention*. *Very frequently* the *breasts* suffer, or the *womb itself* may be *attacked*." The practitioner of this day will easily perceive that the ephemeral fever or weed of the old authors might be either a mammitis or a metritis, on whose appearance the "weed" which had been declared present at first, quietly took its departure. It is not surprising, therefore, that later writers should have discarded the term entirely, and that the disease should have become entirely obsolete in modern pathology. But we are sure that the disease described by Dr. Manson can never become obsolete, or that his views in regard to its nature and treatment can be safely disregarded by practitioners in miasmatic regions. The features of the disease were evidently drawn from nature, and the later descriptions of disinterested observers attest the fidelity of the original picture.

In regard to the old practitioner who stated to Dr. Parvin that he had "known" this disease "and treated it with anti-periodics more than forty years," we have only to reply that this old practitioner has been very successful until now in withholding his precious knowledge from the public, and that he has waited 25 years after the publication of Dr.

Manson's essay, *far too long a period before making it known*, to claim any credit from the profession, who never had an opportunity of sharing his knowledge or imitating his skill.

If Dr. Manson had lived in Boston, New York or Philadelphia, or any of the larger Northern cities, his original, as well as his subsequent, contributions on malarial diseases generally, would probably have attracted the attention they deserve, and he would have been recognized as the author who first promulgated the facts connected with the subject under discussion. Geography seems to have something to do with the general recognition of authorship of American discoverers or originators, since rarely are Southern or Western investigators given the just credit they deserve.

Very respectfully,

HUGH M. TAYLOR, M. D.

Richmond, Va., October 14, 1880.

Suggestion as to Malaria.

Mr. Editor,—It is a fact noted in history that this little tongue of land running down into the Atlantic ocean in a point as sharp as a spear head, and originally called *Accuw-macke*, for the laughing Indian King by that name, who owned and occupied it in the name of *Powhatan*, the chief of all this section, and yours as well, once produced a race of giants. The calf of the leg of one leg would seem to be fabulous; and in his height, exceeding belief. But it is so. This king, we have reason to think, was not *dyspeptic*; nor can we believe had an enlarged spleen, as the result of malaria, which prevailed here at the time, nor gout [he may have been "gouty" to the smallest degree], rheumatism or nervousness. Nature's carpet had not been disturbed by the plow of civilization, nor man enervated by luxurious living. The air, we are told, was perfumed by the wild grape, and the bracing sea breezes, as they passed through the pines, added to their healthful influence the terebinthinate exhalations uncontaminated by noxious civilized gases.

We can well believe that Etruria and the Roman Cam-

pagna, which are known to have been once filled with cities and population, were at that time as exempt from malaria as the laughing King's territory on the Eastern Shore of Virginia.

Since the cities have disappeared, MM. Klebs and Tomassi Crudde have found a spot rich in malaria, and by actual test, find the soil "the chief source of the disease."

These gentlemen agree with an humble resident of the laughing King's territory on the Eastern Shore of Virginia.

Hastily, yours,

WM. S. STOAKLEY, M. D.

Bay View, Northampton Co., Va., Oct. 13, 1880.

Quinia for Cholera Infantum.

Mr. Editor,—In my Translations for the October number of your journal was a paper on the treatment of cholera infantum by quinine. I mentioned in that paper that the method of treatment had been recommended by Barth in the *Gazette Hebdomedian* of 1866, and that Dr. O. F. Manson had also advocated it.

I have found since that Barth recommended quinine in cholera in adults (presumably Asiatic), and I am satisfied now that Dr. Manson has the priority in the matter of cholera infantum. I am very happy to make the correction, and to do but simple justice to a distinguished physician of Virginia; and I shall feel greatly indebted if you will give this card a place in the next number of your journal.

Very truly,

WM. C. DABNEY, M. D.

Charlottesville, Va., Oct. 20, 1880.

Pilocarpin in the Pruritis of Pregnancy.—"A country doctor" writes to the *British Med. Jour.* that a single dose of one-third of a grain of nitrate of pilocarpine, by the mouth, served to bring on profuse sweating and salivation, with complete relief of intolerable and persistent itching, which had lasted throughout pregnancy and recurred after delivery.—*Phila. Med. Times.*

Original Translations.

From the French. By WILLIAM C. DABNEY, M. D., Charlottesville, Va.

Resolvent Treatment of Uterine Fibroids.—At the meeting of the French Association for the Advancement of Science, in Reims, in August last, M. Courty read a paper on this subject. He divides the remedies which he recommends into two classes—general and special. Among the general remedies, he includes diet, laxatives, purgatives, iodide and bromide of potassium, painting with tincture of iodine, alkaline waters for drinking purposes, as well as for baths and injections, tonics, such as quinine and iron, perchloride of iron, etc. The special remedies which he recommends are: Injections of a 2½ per cent. solution of carbolic acid at as high a temperature as the patient can bear (45°C.). These injections are hæmostatic, and, at the same time, they allay congestion.

Secondly, he recommends ergot in the form of the ergotine of Yvon. He advises a solution of one gramme of ergotine in seven grammes each of distilled water and glycerine. Of this solution, one gramme a day should be taken either by the mouth with sweetened water or else hypodermically.

[This would be an exceedingly small dose. I have given hypodermic injections of 4 grains of Squibb's solid extract every other day for months without any injurious general effects.—W. C. D.]

Thirdly, he advises the use of continuous currents of electricity passing through the uterus from the neck to the situation of the fibroid, and lasting for about ten minutes. He speaks of a "continuous" current, but says that a galvanic current interrupted by a rheotome or otherwise is much more powerfully hæmostatic. This treatment is much to be preferred, he thinks, to hysterotomy.

In the discussion which ensued, M. Verneuil said that in a certain proportion of cases this treatment acted very well. It is especially efficacious, he thought, when used for fibroids at the congestive periods. The hæmorrhage may then be arrested and the growth of the tumor prevented. But it is far from being equally efficacious in old fibromata which are absolutely rebellious to this form of treatment. He considered morphine an excellent hæmostatic in these conditions,

especially when there is much ovarian pain from displacement of the organ or other causes.

M. Courty replied that in all cases he had obtained very great relief from the treatment which he recommends, but a complete cure of a fibroid he did not think was possible. He stated, in reply to a question, that the alkaline waters were beneficial in these cases, but their value had been greatly exaggerated.

Treatment of Trembling by Galvanic Baths.—At the session of the same society, M. C. Paul read a paper on the above subject. He called attention to the powerlessness of the means heretofore employed in cases of trembling from whatever cause. Electricity, he stated, was the only agent which had given favorable results in some cases. The galvanic and faradic currents had both been tried without benefit, and it was only the galvanic baths which had not been disappointing.

The patient, who is placed in what M. Paul calls the galvanic bath, is constantly traversed by interrupted galvanic currents. The strength of the current may be varied, and the patient is kept in it half an hour every other day. The results obtained are thus stated by M. Paul :

In mercurial trembling, success was invariable; alcoholic trembling was cured; in sclerose en plaques, there was almost invariably some amelioration, and the same was true of paralysis agitans; in chorea, there was one success and one failure; the trembling in a case of incomplete paraplegia was cured; trembling from spinal irritation was almost always cured; in locomotor ataxia, the treatment failed entirely. He advises that this mode of treatment be submitted to careful scrutiny, and states that he himself will pursue his studies in this direction farther.

[The results are so surprising that they will hardly be received, even from so high a source as M. Constantini Paul, until the method has been tried by others.—W. C. D.]

The Treatment of "Hot" Abscesses with Lister's Dressing was the title of a paper read by M. Trélat. He stated that he had treated a number of "hot" abscesses by this method, and a cure was obtained in a very short time. A suppurating phlegmon of the arm-pit was cured in six days. On the very day after the first dressings, M. Trélat had seen the redness, pain and swelling disappear in a most remarkable manner. In his cases he made a large incision, then injected a 5 per cent. solution of carbolic acid, and then used the carbolized gauze. All poultices and other remedies of that class were

thrown aside. He did not know whether Lister's dressing could be termed an antiphlogistic, but he had seen the inflammatory process relieved by it in twenty-four hours.

M. Rochard mentioned in this connection the results obtained in cases of *hepatic abscesses* in India and China by the English surgeons. This affection, as is well known, is exceedingly common in these countries. Under the former modes of treatment, the mortality was about 90 per cent. Now, with the use of Lister's antiseptic method, it is about 10 per cent. This very great change is not due, however, entirely to antiseptics. A great difficulty experienced formerly was the diagnosis of an abscess of the liver. This has now been removed by the use of Dieulafoy's aspirator. As soon as swelling of the liver and digestive troubles point to an hepatic abscess, a needle of the aspirator is plunged into the most prominent part of the organ, and if no pus is found it may be inserted at another point. If pus is found, a bistoury is inserted by the side of the aspirator needle, and a free incision made in the intercostal space. The cavity of the abscess is then injected with a solution of carbolic acid, a drainage tube inserted, and the opening covered with the antiseptic dressing. The cure is generally complete in from fifteen days to three weeks.

M. Nicaise spoke favorably also of the antiseptic treatment of abscesses, and said that his treatment differed from M. Trélat's in the fact that he employed poultices in the early stages of the affection, and subsequently resorted to antiseptic treatment. He said he had used boracic acid in some cases with satisfactory results. He spoke in high terms also of injections of creosote, and said that in his practice these injections had never caused any local irritation.

M. Gayet said that carbolic acid was not the only antiseptic worthy of notice, and he reminded his hearers that this drug sometimes caused a troublesome erythema.

Different Dressings for Wounds.—M. Maurel, in a paper on the kindred subject of "Different Dressings for Wounds," gives the following as the conclusions to which he has been led:

1. The simple dressing ought to be entirely abandoned.
2. Continuous irrigation, whether with cold or hot water, if the temperature of the water is kept the same, may render real service.
3. The principle of mechanical filtration of the air ought to be preserved, but an effort should be made to find something less hot and less cumbrous than cotton.

4. The dressing of Lister gives good results, but it is complicated, difficult of application, and inconvenient in private practice.

5. Artificial atmospheres ought to be abandoned.

6. Occlusive means, and especially dressings with collodion, appear to deserve the preference.

The point which M. Maurel considers of the utmost importance is to keep the wound from the access of germs. The value of any dressing depends upon its power in this respect, and he thinks collodion fulfills the condition more readily than anything else thus far employed.

The Employment of a Milk Diet in Diseases of the Heart was the title of a paper read by M. Potain. After making a classification of diseases of the heart, which it is unnecessary to reproduce here, he gives the following as the conclusions at which he has arrived:

Milk diet is especially efficacious in secondary diseases of the heart, hypertrophies or simple dilatations, having a renal or gastric origin.

The especial value of a milk diet in these cases consists in the fact that the stomach and kidney are permitted to rest during this treatment. Hence, in order that good results may be attained, the treatment should be continued for some time. Similarly good results may be expected in palpitation or other reflex disturbances of the heart when they are due to gastric derangement. Milk has a diuretic effect, and hence is useful in cases of dropsy from renal disturbance or from secondary inflammation of serous membranes.

Finally, milk may be exceedingly useful, because it is better tolerated than other nourishment, and because it is sufficient to sustain life.

Result of Treatment of Aneurisms of the Aorta by Galvano-Puncture.—A most interesting and instructive paper was read on this subject by M. Petit. He had collected 114 cases. In 111 cases, the interrupted current had been employed. Of the 114 cases, 60 were benefitted; 38 died without any tolerable improvement. In 3 cases, there was no result whatever; in 4 cases, the result was doubtful. Thirty-eight patients died in less than a year, though they were temporarily improved; ten died between one and two years; the others have lived from two to five years. Of those patients whose history could be obtained, death has occurred from rupture of the aneurism in about 40 cases; this was, by far, the most frequent cause of death.

After the disappearance of the immediate pain and trouble

of the application, improvement is immediately manifested by great relief from pain; the pulsation is lessened and it becomes firmer; often there is a progressive diminution in size. This retrograde change had come on in 24 cases after only one application, and had lasted from two to seventeen months. In other cases, the current had been passed from three to twelve times, but it was necessitated by the failure to improve after the first application, or because the improvement was of temporary duration. In these cases, the patients all died, sooner or later, without being materially benefited.

Intra-thoracic aneurisms have given 30 successes and 7 failures; of those which had made their way outward, 36 were successful and 31 unsuccessful.

In the 114 cases, the battery was applied 292 times, with the following results: 186 times there was amelioration; 61 times the symptoms were aggravated; in 14 instances there was no change, and in 31 instances the result is not mentioned. *Pain* was relieved more often than any other symptom, and there was a return of appetite and sleep. Among the accidents observed were enlargement of the tumor, inflammation along the course of the needles, circumscribed gangrene and persistent hæmorrhage. These accidents are rare if the needles be connected with the positive pole. M. Petit considers this treatment for aneurisms of the aorta the best thus far employed, and this opinion is entertained by most other writers on the subject.

Analyses, Selections, etc.

Prepared by HUGH M. TAYLOR, M. D., Demonstrator of Anatomy, etc., Medical College of Virginia, Richmond.

Cerebral Rheumatism.—A few years ago, Prof. Da Costa published in the *American Journal of Medical Sciences* an elaborate paper upon the above-mentioned subject. He limits the term cerebral rheumatism to cases in which the nervous symptoms are prominent, and appear to constitute the real features of the affection. The disorder is not a frequent one; but he thinks he has seen in the short space of four years no less than twelve cases of this formidable malady, and attributes this frequency with which the disease is met in certain years over others to some peculiarity of the rheu-

matic poison, which makes it fix more readily on the brain. In none of the autopsies did he meet with meningitis; he thinks what is called rheumatic meningitis is generally not meningitis at all, but cerebral rheumatism, with an absence of meningeal lesions. The temperature is apt to be high, the joint affection persistent, or even showing signs of increase; the breathing is rapid; the pulse frequent, compressible, and at times irregular. A cardiac difficulty may show itself distinctly as a complication, or again be wholly wanting. In some cases, convulsions, in others, local palsies happen, or we may have hemiplegia even, suddenly developed. But these features are rare; and it is in the wakefulness and restlessness, in the stupor and delirium, that we mostly find the signs of how decidedly the brain has become disordered. In some cases, hurried respiration attracted his attention, without anything in the condition of the lungs or heart to account for it; occasionally, however, there was decided congestion of the lower lobes of the lungs. A petechial eruption was observed in a few cases. It consists of irregular, dull red spots, sluggishly influenced by pressure, and which may be perceptible after death. It probably depends on stagnation of the blood in the capillaries from paralysis of certain vaso-motor nerves. The delirium is not violent, and is rarely associated with headache. It is generally worse at night, and sometimes has a strange hysterical semblance. The delirium is preceded by wakeful, dreamy nights; is generally mild, and it is during the restless nights that it shows itself most plainly. Though it may be continuous, it is rarely a fierce delirium, and is rarely linked either to headache, injected eye, or vomiting. It may run a rapid course—delirium or stupor quickly ending in coma, coma in death. But, ordinarily, it goes on for days, the patient gradually mending or becoming weaker and weaker, and even perhaps passing into a condition very similar to that of typhoid fever, excepting that the bowels are constipated.

This description is republished in the July issue, 1880, of the *Chicago Medical Journal and Examiner*, by Dr. P. O'Connell, who takes issue with Dr. Da Costa in thinking the twelve cases reported by him cases of cerebral rheumatism. He thinks that Dr. Da Costa has confounded several different and distinct diseases.

Nerve-Stretching as a Therapeutic Measure.—Dr. James J. Putnam thinks the operation of nerve-stretching has now gained for itself a well-recognized place in the therapeutics

of nerve diseases, and we have in it an operation of great value in many forms of neuralgia, in muscular spasm, and perhaps in neuritis; but as yet neither the indications for it nor the best method of performing it have been sufficiently defined. The questions which call for more definite answers are: What degree of traction can the various nerves of the body safely endure? Upon which nerves can the operation be performed with the best chances of success? Are central as well as peripheral lesions susceptible of cure in this manner? Are second operations upon the same nerve practicable? Does it make any difference whether the central or the peripheral portion of the nerve is stretched? Is the effect of a series of quick, short pulls different from that of one prolonged stretching? Does the existence of acute or sub-acute neuritis contra-indicate the operation? What are its attendant dangers? In what manner does the stretching act? What is desired is to produce a temporary but not a permanent loss or diminution of functional power. While capable of great good, it is equally capable of harm. It diminishes the irritability of the nerve and the time which elapses between an electrical excitation and the associated muscular contraction is increased. It has been claimed that, besides the changes in the mechanical conditions within the nerve itself, the walls of the blood-vessels of the nerves are subjected to analogous changes of tension, pressure, &c., especially at their point of entrance into the nerve-sheath, and to this has been attributed the nutritive changes which take place in the nerve-tissue.—*Boston Medical and Surgical Journal*, August, 1880.

Stone in the Bladder.—Dr. R. F. Weir, of New York, in a clinical lecture, published in the *Chicago Medical Journal and Examiner*, reminds his hearers of the production of ammonia in alkaline urine, whereby the changed urine allows the earthy salts to be deposited. These salts uniting with the mucus of the bladder, may result in the formation of a calculus which may be called an inflammatory stone. Again, a stone may form from urine too heavily-laden with salts, as is seen in the summer time, or when we catch cold, when the water and the phosphates are often thrown down as a red or pinkish deposit. Besides the usual constituents of the urine, xanthine and cystine occasionally constitute the nucleus of a stone. Cystine calculi are rare. This constituent of urine differs from the others in that it has sulphur in it, which gives it its peculiar character. When cut open, such calcu-

lus is soft, greasy, yellowish in color, and fractures easily. Of all the various salts and organic deposits, uric acid and its compounds are by far the most frequent nuclei of stone. Mr. Carter, at that time a surgeon in India, found that out of sixty-two calculi, thirty-four were formed of urates, twenty-one of oxalates, seven of uric acid pure. When he came to England, he made another analysis, but this proportion did not obtain there—the uric acid compounds constituting 7 per cent. of all the stones, and the oxalates going down in the scale to 29 per cent., as against 56 per cent. uric acid compounds to 44 per cent. of oxalates in India. It is evident that the difference is owing to the difference in diet—the articles of food in India being largely farinaceous, and thus producing more oxalate of lime. Another condition is necessary to the formation of stone besides the deposit of these salts. In consequence of congestion, a certain gluey or colloid material is poured out, and this colloid material entangles some of the salts, and if not broken down by a healthy stream of urine, it stays as a nucleus, and soon grows into a calculus of increased size. When such a nucleus takes up its residence either in the kidney or in the bladder, the inflammation which it excites as a foreign body causes an increased secretion of mucus, which, mingling with the urine, induces fermentation. The urine then becomes alkaline, and the earthy phosphates are deposited around the nucleus, causing the whitish layer so often seen in calculi.

The largest stone on record found in the bladder weighed six pounds. Fifteen ounces is the weight of the largest stone that has been removed by operation. Children are more apt to have temporary congestion of the kidneys, and, consequently, stone in the bladder. It has been noticed that after an epidemic of cholera, there will come an epidemic of stone, due to the thickening blood.

Weak Eyes.—Dr. Henry S. Schell contributes to the *Med. and Surg. Reporter* of July, 1880, a comprehensible and practical dissertation upon this important subject. He uses the term weak eyes to denote such eyes as cannot be used without pain or discomfort, but in which there is no obvious sign of failure of vision. He divides the cases into two classes. The first are those arising from causes immediately connected with the eye itself or with its appendages; and the second arising from sympathy with other parts of the body. This first division may again profitably be divided into three main varieties in relation to their causation, viz.:

into those arising—1st. From anomalies of refraction. 2d. From failure of the mechanism of accommodation; and 3d. From inflammatory conditions. Those of the second class are divisible into two varieties; the first of which is manifested by a partial or complete paralysis of the nerves of accommodation, and the second by paresis of the vaso-motor nerves of the interior of the eye. These varieties, he thinks, may even, without the aid of the ophthalmoscope, be distinguished from one another. The anomalies of refraction, with perhaps the exception of myopia, are mostly congenital. They make their appearance in early childhood, with the first attempt to learn letters or to use the eyes upon some close work, or they may lie dormant and only declare their presence at the age of fifty or even sixty years, when increasing hardness of the crystalline lens renders futile the efforts of the ciliary muscle to neutralize an abnormal curvature in the cornea. In asthenopia of this sort, the patient gives the following history of his troubles: He says, in commencing to read, he at first sees the letters distinctly, but they sooner or later become blurred and run together. If he closes his eyes for a few minutes and tries again, the same experience is repeated. If he then strains hard to see, he perhaps succeeds, but it is at the expense of sensations of pressure and fullness in the eyes, and of tension in the forehead. A continuance of the effort brings on pain in and around the eyes, headache, giddiness, and even nausea and vomiting, together with a sensation of dazzling, some lachrymation and injection of the conjunctiva. This state of affairs may have existed for some time, and the symptoms may have gone on from bad to worse, before the patient applies for relief, and we may then find him with contracted pupil, chronic hyperæmia of the tarsal conjunctiva, and hypersecretion of mucus, simulating a catarrh. At this stage of the affection, the patient is much troubled with intolerance of light, and especially the glare of gas or other artificial means of illumination. Styes are apt to make their appearance along the tarsal borders, and Meibomian cysts form in the substance of the lids. All of the painful symptoms in these cases are at once alleviated by the use of atropia, which puts near work out of the question, sets the eye at rest, and prepares it for an accurate examination of the refraction. The only permanent relief in all these anomalies of refraction is to be gained by the careful adaptation of proper glasses, and by the gradual increase of exercise of the eye before using them for continuous work. Not infrequently people beyond the age of

sixty apply for relief from asthenopic symptoms. For years these patients have worn glasses, requiring stronger and stronger ones until the internal recti muscles soon falter under the fatigue of forced convergence, and the sight becomes blurred again. Such cases will usually be found to require a combination of cylindrical lenses, with a spherical one of much less power than that of the one they have been accustomed to wear. The second variety of weakness from intra-ocular causes blends at its edges insensibly with the first. For, through the failure of accommodation, through senile hardening of the lens, it first shows itself in the normal or emmetropic eye between forty and fifty years of age; yet the same indurating process really commences very early in life, and goes on, increasing gradually throughout; so that, if there is any complication of hypermetropia or astigmatism, the effects may appear much earlier. The attempt to evade the use of glasses in these cases, generally produces precisely the same set of symptoms as those previously described. In most inflammatory conditions of the eye, which constitute the third variety of this class, there is usually a frank exposure of their presence by reason of the injection of the ocular conjunctiva, which accompanies them. But occasionally this symptom is absent, and the most obvious condition appears to be that of weak sight. There is generally considerable intolerance of light, and the bad feelings and asthenopia do not disappear after prolonged rest. Indeed, the eyes often feel worse in the morning on waking than they did the night before. Inflammation often lurks undetected in the conjunctiva of the upper lid; there is an increased secretion of mucus, which glues the eye-lids together in the morning.

The writer pertinently remarks that the practice of a specialty should be an attribute of ripe experience, not of the beginning of real study. The eye is not a separate entity which can be detached from the body and live, but an inseparable part of the whole individual; and if we have a sick eye to treat, we want to know not only what is the matter with it, but everything that bears adversely upon the health of the person to whom it belongs.

This brings us to the consideration of the second division of our subject, viz.: Those cases in which the weakness of the eyes arises from sympathy with other parts of the body. In the first variety of this division, those filaments of the third nerve which control the mechanism of accommodation are more or less completely paralyzed. The eye readily becomes fatigued when used; in reading, the letters presently

run together, and are illegible; all objects look smaller than natural, and a continuance of the effort to use the eyes brings on most of the series of asthenopic symptoms already related. When the eye is closely examined, it will be found that the pupil is somewhat dilated, and that it does not contract under efforts at near vision, and, in some cases, not even under the influence of light. In addition, the iris is more or less tremulous after or during quick movements of the eye. This condition occasionally arises from caries of the teeth in children, and especially in girls from ten to twenty years of age—no doubt owing to the greater excitability of the nervous system in the sex. The anatomical connection may be traced through the ganglionic filament of the first branch of the fifth nerve to the lenticular ganglion, which is in communication with the third nerve by its short root. The careful attention of a dentist usually insures a cure in such cases. Sometimes, however, the acquired inertness of the muscular fibres in the ciliary body and iris needs to be overcome by galvanism before the cure is complete. Acute swelling of the cervical glands sometimes produces temporarily the same condition, probably through pressure on the auriculo-temporal branches of the fifth nerve, thence, by reflex action, through the route designated above. Disease of the ear not infrequently produces the same effect. It mostly arises in those long-standing cases of inflammation of the tympanum where there is loss of the membrana-tympani, with a constant muco-purulent discharge, and it gives reliable information that the nervous system has been attacked. The same condition occurs from diphtheria, lead poisoning, uræmia, and alcoholism. In these cases, the local treatment should be subordinate to the general or constitutional. In the second variety of this class, there is a vaso-motor paresis affecting the vessels of the retina and other coats of the eye, and is usually transmitted from the uterus in women and prostatic gland in men. There is often apparent unreality in these cases, which stamp them as hysterical. Phimosis in boys, and chronic irritation of the vulva, clitoris and vagina in girls, also give rise to it.

He concludes, briefly, that when the irritability is dependent upon anomalies of refraction or presbyopia, the annoyance subsides when the visual organ is placed in a state of repose. In reflex paralysis of accommodation, the partial dilatation of the pupil and its refusal to contract during near vision or under the influence of light, is pathognomonic. When dependent upon inflammatory conditions of the eye

and its appendages, intolerance of light is a marked symptom, and rest does not give entire relief. And in vasomotor paresis, sympathetic with disturbance of the genital organs, the pain is more or less constant, irrespective of work. In amblyopia, there is no pain—only failure of acuity of vision—and it is easily distinguished from the troubles just considered.

Sulphide of Calcium in Bubo.—Dr. F. N. Otis remarks: I have taught, up to within six months, for many years, that when a gland is enlarged as a result of the chancroid secretion, suppuration is inevitable; a chancroid is at that moment established in the centre of the gland, which goes on inevitably to suppuration and the formation of an abscess, the secretion of which is chancroidal. But the experiments which were made last winter in the Blackwell's Island Hospital, under my supervision, by the administration of the calcium sulphide in all cases of bubo associated with chancroid, has led to the belief in the possibility of that suppurative action being arrested, because fifteen out of eighteen buboes so associated with presenting chancre were brought to resolution. The fact that the administration of one-twelfth of a grain of the calcium sulphide every two hours, combined with other such treatment as rest, iodine and pressure, resulted in the resolution of fifteen out of eighteen such cases, is sufficient to warrant its trial.—*Med. & Surg. Reporter*, Aug., 1880.

The Oblique Incision in Operations.—Dr. Packard calls attention to the advantage of oblique cutaneous incisions in avoiding scars and favoring immediate union. Two weeks previously, he had removed a large breast by oblique incisions, and had dressed the wound with adhesive plaster and cerate, after securing the vessels with catgut. On the fifth day, the wound had healed from end to end, and there had not been enough pus to soil the dressing. The method had been previously recommended by him elsewhere, as a method of avoiding scar, but as it seemed to promote union by first intention, probably because of the larger surface of contact, he desired to bring the subject to the notice of the profession.—*Trans. Phil. Acad. Surg.*, in *Med. Times*, Aug., 1880.

Internal Urethrotomy—Its Dangers and Benefits.—At a recent meeting of the New York Academy of Medicine, Dr. A. L. Ranney read a paper on this subject. We would call special

attention to Dr. Ranney's views, as we think the value of his paper and the importance of the subject cannot well be overestimated. After a careful study of the subject, he makes the following deductions: It is seldom necessary to resort to the knife in the treatment of stricture of the urethra, unless it is resilient, traumatic, or at the meatus. Incision should never be performed more than four inches from the meatus. In deep strictures, divulsion or external section is advisable. Dilatation is sufficient in most cases. Strictures of large calibre should not be cut unless other means fail. He quotes, as supporting his proposition, numerous authorities. Sir Henry Thompson says, if there is a stricture which will not yield to dilatation, and a slight notch is not sufficient to overcome it, free incision may give rise to internal hæmorrhage. He thinks unfortunate results must follow internal urethrotomy. Gross, Ashhurst and Erichsen and Sir Henry Thompson all say dilatation is the best method. Spence regrets that internal urethrotomy has become so fashionable, as he fears the dangers from hæmorrhage and infiltration. Bumstead, Gouley, Van Buren and Keyes all favor dilatation.

In the discussion which followed, Dr. F. H. Hamilton said he thought it was time this very important subject was settled. With him it is settled in favor of dilatation. He hoped the views embodied in the paper just read would sink deep into the hearts of the hearers. He did not say that there is no ease in which he would ever make internal urethrotomy: but that such eases are very rare, and that the male urethra is not a rifle bore, that it may be thrust into and cut and drilled with impunity.—*Med. Gazette*, June, 1880.

Boracic Acid—A New Remedy in Eye Diseases.—Dr. Samuel Theobald, of Baltimore, is confident that in the treatment of eye diseases, boracic acid has open to it a wide field of usefulness, and that it merits a position in ophthalmic therapeutics second only to that of atropia. In it we possess an agent capable of arresting purulent and muco-purulent discharges from the conjunctiva, and yet so bland in its action as to cause no irritation. The affections to which it seems especially adapted are purulent conjunctivitis, including gonorrhœal ophthalmia and ophthalmia neonatorum, catarrhal conjunctivitis, asthenopia, and the conjunctival hyperæmia which usually accompanies it, in granular conjunctivitis, and in cases of phlyctenular ophthalmia, in which the inflammation is chiefly conjunctival and somewhat catarrhal in type. In relieving atropinism, and when used with atropia in prevent-

ing it, it is undoubtedly efficacious. In inflammatory affections of the cornea, his experience of its action has been decidedly favorable, and he would recommend its use in panus, in ulcerative and suppurative keratitis, and in the various forms of diffuse corneal inflammation. As an adjunct to the probe in the treatment of lachrymal affections, it promises to be of much value. In marginal blepharitis, an ointment containing ten grains of the acid to a drachm of simple cerate, has been of unmistakeable service in some cases. And finally, with boracic acid substituted for carbolic acid, the principles of antiseptic surgery may be applied to the graver operations upon the eye. In asthenopia, in catarrhal conjunctivitis, and in keratitis, he would recommend a solution containing from two to four grains to an ounce of distilled water, giving preference in most cases to the latter strength. As a rule, three or four times a day is often enough to apply it, but it may with safety be applied more frequently. In the different forms of purulent conjunctivitis, and more especially in gonorrhœal ophthalmia, stronger solutions will probably be required; even a saturated solution (gr. xx to ʒj) causes only the most trivial and momentary irritation. It exerts an astringent, antiseptic and sedative or anodyne influence.—*Med. Record*, Feb., 1880.

Third Stage of Abortion.—Dr. Parvin, of Indianapolis, supposing that we have a case of incomplete abortion having hæmorrhage, which, by its profuseness, brings danger to the patient, a commencing offensive discharge that heralds a possible septicæmia, recommends the following treatment: Take a pair of curved polypus forceps of suitable size, and gently introduce the closed blades into the uterine cavity: open them slightly; then close them and withdraw, when the fragments of the membrane can be removed, and the instrument re-introduced. Repeat this three or four times, if necessary, until all membrane or placental fragments are extracted. Then, by means of an applicator, wrapped with cotton wool, swab out the uterus twice or oftener with Churchill's tincture of iodine—one of the best uterine hæmostatics, if not one of the best antiseptics. Finally, let the patient have ten or fifteen grains of quinia, and it will be very rarely indeed that her convalescence is not prompt and perfect.—*Obstetric Gazette*, July, 1880.

Martin's Bandage in Psoriasis.—Dr. E. W. Walker contributes to the Cincinnati *Lancet and Clinic* his experience in

the above-mentioned method of treating psoriasis. He was led to try it from having seen the excellent results that followed its use in varicose ulcers, chronic eczema, and, in fact, almost all troubles associated with dilatation of the blood-vessels, whether that increase is arterial or venous. The results in psoriasis far exceeded his expectations. Knowing the pathological condition to be a dilatation of the vessels and an increased cellular proliferation in the papilla, he is assured that there is nothing that will cause a diminution in the size of the vessels or an absorption of newly formed cells and prevent the continued formation of such cells better than a steady, equal pressure, such as can be attained by Martin's bandage. It should remain on all the time, day and night, not tight enough to cause pain, but sufficiently so to cause pressure. It should be removed, washed, and re-applied night and morning.

Atresia of Genital Passages of Women.—Dr. Ed. W. Jenks, in a paper read before the Chicago Medical Society, July 19th, 1880, and published in the *Chicago Medical Journal and Examiner*, concludes with the following summary:

As fatal results have followed operations for the simplest varieties of atresia, the surgeon should apprise the patient and her friends of the dangers. In case of menstrual retention from vulvar, vaginal or uterine atresia, the fluid should not be evacuated *via* the rectum with a trocar, but in the route pursued by the vagina. Where there is reason for believing that there is a large quantity of menstrual fluid distending the uterus or Fallopian tubes, the safest mode of evacuating it is by means of an aspirator, prior to any surgical procedure for the cure of an atresia. The evacuation of menstrual fluid should never be through a small orifice (with the exception of aspiration), but through a free opening, after which the vagina and uterus should be thoroughly washed out with warm water, as the best means of arresting and preventing septicæmia or inflammation. Septicæmic inflammation and rupture of the Fallopian tubes are the chief disasters attending atresia, or following operations for its cure. Congenital atresia of the vagina can be best relieved by tearing with the finger, as the rudimentary canal already existing serves a similar purpose to the surgeon that an instrumental director does in cutting operations; but the accidental forms require cutting, for which operation scissors are preferable to the knife, in some cases; but cutting and tearing are requisite. There is reason for believing that

when there is an accumulation of menstrual fluid within the vagina and uterus, particularly within the latter, the best time to operate is immediately prior to the menstrual date, as the patency of the newly opened canal is better insured. Notwithstanding the dangers attending these operations, there is good reason for believing that by care and caution, and with a proper use of antiseptics, favorable results may be expected from operations for either congenital or accidental atresia.

Expectant Plan of Treating Caries of the Ankle in Children and Young Adults.—In the *Medical Record*, of August, 1880, we find an interesting paper on this subject by Dr. T. S. Satterthwaite, of New York. He alludes to the report made by a committee from the Therapeutical Society of New York. A synopsis of twenty-four cases demonstrated to this committee that the expectant plan pursued in most cases was competent alone to effect a satisfactory cure, with a very inconsiderable loss of function, and within a reasonable time. These conclusions have been further sustained by an elaborate paper from Dr. V. P. Gibney, wherein he reviews the final results in thirty cases that came under his own observation. Attention is called to a fact now recognized by surgeons and orthopædists on both sides of the water, viz: that many children annually suffer amputation of the foot, when, under conservative treatment, the member could have been saved. It is further stated that neither excisions, partial or complete, nor other operative procedure, offers advantages superior to the expectant plan, which at once assures a more perfect result than any known to the profession. If the joint is inflamed, entire rest is ordered; if abscesses form, they are opened; if loose bone is detected, it is simply removed, as if it were a foreign body interfering with the process of healing; if, in the further progress of the disease, malposition of the parts is found, a support or brace is given to rectify the deformity. This method is simply one that addresses itself to immediate symptoms, and recognizes any treatment that would suggest itself to a practical surgeon or orthopædist, provided only he does not practise chiseling (gouging), excision or amputation. The number of affected males and females were equal, and the majority were attacked between the ages of six and thirteen. Of sixteen cases, in only four was there an alleged injury without the suspicion of blood disease; but in five others the two were associated. In the two remaining, there was positively no record of an injury,

and the personal and family history was excellent—an interesting circumstance suggesting that there may possibly be causes apart from traumatism or cachexia. In a total of sixteen cases, useful joints were obtained in fourteen. Gouging or chiseling was practised in five cases in conjunction with other methods, and gave a useful foot in three of them. It may be questioned whether it is well to anticipate nature in her effort at recuperation, for it is seen that the most perfect final results are those which nature has accomplished unaided. In place of the carious bone, she deposits sub-periosteally new material, which, gradually encroaching upon the disease, is ready to supplant it when the process of removal has been completed. It is capable, in almost every instance, of saving the foot from amputation, and even excision, partial or complete. The result is better, and the time to accomplish it has yet to be shown to be longer.

A Positive Sign of Pregnancy during the First Three Months.

Dr. J. H. Carstens writes, in the *Detroit Lancet*, September, 1880, as follows: I wish to call attention to a sign which, in my experience, has never failed in making a correct diagnosis of pregnancy. I refer to the color of the mucous membrane of the vagina and cervix uteri. This I have always found of a purplish blue, or rather deep violet hue. It is not produced by any pathological condition. The different colors produced by uterine diseases cannot be mistaken for this pathognomonic violet hue. I have often called the attention of students to this sign, and in dispensary practice it has repeatedly occurred that women under my treatment for uterine disease have not attended for six or eight weeks, and hastily placing them on a table without inquiring about their last menstruation, I have introduced a speculum, and have been on the point of introducing a probe, or making an application to the uterus, when, behold! there was the characteristic color. In every case which I could keep under observation, the women were afterwards delivered at full term or had a miscarriage.

Catheterization of the Larynx as a Substitute for Tracheotomy.

In the "Bellevue Hospital Reports," published in the *Medical Record*, we find a report of this interesting procedure. A baby a few weeks old, had the appearance of being in a healthy and well-nourished condition. It had, however, persistent convulsions and attacks of laryngeal spasm. On examining the pharynx, a laryngeal spasm was promptly pro-

duced, and the baby became suddenly asphyxiated to an alarming extent. Respiration ceased at once and the face became livid. Artificial respiration was resorted to immediately, but neither Schutze's, nor Marshall Hall's, nor Sylvester's method did the least toward restoring the child. The tissues of the larynx were completely relaxed, but there was not sufficient life in the child to enable it to breathe. The heart continued to beat. A male silver catheter was quickly introduced through the larynx, and respiration was immediately restored. The convulsions were controlled with chloroform, and the child, after passing through such an ordeal, recovered.

The practical point of interest is the catheterization of the larynx in preference to tracheotomy in a case demanding prompt action to prevent death from asphyxia.

The following points are noted in the *British Medical Journal*, by Wm. Macewen, in its favor over tracheotomy. The air passing through the mouth, &c., becomes warm, moist and filtered. One of the great dangers in tracheotomy is pneumonia. In a few minutes after the tube is introduced into the mouth, it attains the same heat as the body, and its interior becomes covered with moisture, and offers an adhesive surface for organic particles passing. The following conclusions are arrived at:

Tubes may be passed through the mouth into the trachea not only in chronic but in acute affections, such as œdema glottidis. They can be introduced without putting the patient under an anæsthetic. The respiration can be perfectly carried on through them. The expectoration can be expelled through them. Deglutition can be carried on during the time the tube is in the trachea. Though the patient at first suffers from a painful sensation, he soon becomes tolerant of the presence of the tube. The patient can sleep with the tube *in situ*. It may be used in operations on the face and mouth to prevent blood from gaining access to the trachea, and for the purpose of administering the anæsthetic. In all the cases tried it proved harmless, and the ultimate results were rapid, complete and satisfactory. Tubes of varying size must be used. It may be known to be in the trachea by feeling the instrument pass through the rings of the trachea, and by finding the air and mucus expectoration passing through it.

Iodine in Malaria.—If iodine accomplishes half in intermittent fever and its consequences that is claimed for it, it will prove an inestimable boon to suffering humanity. It is hard

to calculate the number of lives it will save among the poor who cannot buy quinine, and the dollars it will save to the country practitioner. The credit of introducing it belongs, we think, to Dr. G. Monsdnitschauski, of St. Petersburg, who claimed that it will never rank second to quinine in the treatment of intermittent fevers. Like every innovation, it has its opponents and advocates, but the former are few as compared to the latter. It has been suggested that its promiscuous and unscientific use has, with some, brought it into disrepute. With a better appreciation of its *modus operandi*, it is thought its acceptance will become universal. Dr. Fordyce Grinnell, of Maryville, Tenn., reports, in the *Independent Practitioner*, of August, 1880, his use of this remedy. He has treated 135 cases of intermittent fever with it—74 being males and 61 females; these included children, and, in some instances, infants. The quotidian and tertian types were the forms principally presented. He also treated with iodine four cases of diarrhœa and eight cases of neuralgia of malarial origin. One hundred and forty-seven cases were thus treated by this writer, and the results were fully as good as when quinia was used. In many of his cases the remedy acted so quickly that a recurrence of the paroxysm was prevented. In cases of enlarged spleen, there was a more speedy reduction in the size of that organ than when the sulphate of quinia was used. If used in solution, it is advised to combine with it a few grains of iodide of potassium.

[In a conversation a few days ago with Dr. H. D. Talliaferro of this city, he informed us that he has had marked success with iodine in the treatment of malaria. Dr. T. has at this time two or three hundred men under his charge, who are at work on the new pump works, situated on the James river, about three miles above the city. As most of them are men who were brought to this section from the mountains to work upon these works, they have been affected with malaria in every form, and have afforded him a fair chance to test this method of treatment; he is of the opinion that it acts quickly in breaking the force of the disease, and effectually in preventing a recurrence.—H. M. T.]

Clover Tea for Cancer.—This is not a new remedy, but it is one capable of doing good in some cases. At the request of a noble woman, who for years has suffered the agonies of cancer, and who has been greatly benefitted by this remedy, a writer in the *Medical News* wishes to re-awaken an inter-

est in its use. She says: "The clover tea has done wonders for me. My appetite is now good, my general health is greatly improved, and the wound is healing. For seven months I have had to take morphia, and its unpleasant effects had become great. My pain having so much diminished under the use of the clover tea, and my general health having gotten so much better, I determined to give up the morphia, and have gotten on comfortably without it. If my experience will save one poor suffering fellow creature a single pang such as I have suffered, I will thankfully bear my cross, and rejoice that through me a remedy has been found which will give relief, if not a cure, for cancer. The tea should be made as tea is made for table use, strained, and taken before meals and at bedtime, about a quart daily. The blossoms of the red clover should be used.

A fluid extract has been made, of which the dose is a tablespoonful thrice daily.

Pneumatic Apparatus in Chronic Lung Diseases.—When we consider that this method has been in vogue for only two years, its universal acceptance, and that from ten to fifteen per cent. of the entire population of the earth is carried away by chronic lung affections which prove so unmanageable, it is surprising that it was not adopted years ago. Different climates to suit different conditions of pulmonary disease, are urged by all. Warm, moist, dry, rarified and compressed atmospheres are agents that come in use to influence the physical conditions of our patients. According to each special case, we may select a climate where one or more of these agents come into action. By means of the pneumatic apparatus, we are not only able to produce at any time compressed, rarified, warmed and moistened air for our patients to inhale, but we can combine this mechanical with a local medicinal treatment, by passing the current of compressed air before it is inhaled through a flask partly filled with a medicated solution. At present, the following modes of treatment with the apparatus are practised :

Inhalations of compressed air in cases of congestion of the lungs, stenosis and insufficiency of the mitral valve, chronic bronchitis, pleuritic residues and asthma. *Exhalation* in rarified air in all cases where the elasticity of the lungs and contractility of the chest are lost or impaired, emphysema, paralysis of the muscles of expiration, poisoning from carbonic oxide, etc. *Inhalation* of rarified air to exercise and strengthen the lungs and muscles of respiration in incipient con-

sumption and predisposition to this disease. *Inhalation* of medicated compressed air in chronic bronchitis, etc. *Inhalation* of compressed air with exhalation in rarified air combined. This method has been found very useful in cases of emphysema complicated with chronic bronchitis. This method has all of the advantages of elimato-therapy, without many of the discomforts often necessary to attain it.—Dr. A. E. Brune, of Sacramento, in *Pacific Med. & Surgical Journal*, August, 1880.

The Introduction of the Tracheal Tubes by the Mouth Instead of Performing Tracheotomy.—Dr. Wm. MacEwen, in the *British Medical Journal*, of July 24, 1880, publishes his success by this method. He wished to remove an epitheliomatous growth from the pharynx and base of the tongue. As it was an operation which would cause considerable bleeding, precautions had to be taken against it. Hitherto this has been accomplished by opening the wind-pipe by laryngotomy, and the introduction of Trendelenburg's tampon-canula. Instead of this, a tube was introduced through the mouth into the larynx, beyond the vocal cords. The upper laryngeal opening could then be plugged outside of this tube, so as to prevent the entrance of blood into the larynx. This could be best effected by causing the tracheal tube to perforate a close sponge of suitable size. The larynx in no way seemed to suffer, and the voice in no way was affected. The administration of the anæsthetic was carried on through the tube, which projected several inches beyond the mouth, quite uninterruptedly, and without in any way interfering with the operator. The respiration was felt and heard by the administrator; the tube, as it concentrated the flow of air, increased the sensation to the hand and ear. Once or twice during the time he was under chloroform, mucus was thrown from the tube by an explosive respiratory effort. It must be obvious that so long as the tube, which went beyond the vocal cords, remained patent, there could not possibly be any fear of asphyxia, and the most frequent cause of fatality under the use of chloroform would be avoided.—*Louisville Medical News*, August 14, 1880.

Jamaica Dogwood (*Piscidia Erythrina*).—This drug comes recommended by physicians in Jamaica and England, who have used it extensively and consider it a hypnotic and narcotic of the highest value. Its use is not followed, like that of opium, by hyperæmia of the brain, nausea and nervous dis-

turbance. In addition, it is a diaphoretic. It produces sleep without the disagreeable after effects of opium. It resembles that produced by bromide of potassium or lupulin. Compared with atropia, piscidia, unlike the former, does not paralyze the motor nerves, nor the chorda-tympani; it does not arrest the sudoral secretion; it does not paralyze the pneumogastrics, and does not elevate greatly the arterial tension, but like it, dilates the pupil. Compared with morphia, like it, it produces sleep, heightens excitability, spinal convulsions, general paralysis and stimulation of the main vaso-motor center; unlike it, it dilates the pupil. The writer concludes that it is a narcotic; that it does not affect the irritability of the motor nerves; that it does not affect the peripheral ends of the sensory nerves; that it reduces reflex action by a stimulant action on the centers of Setschenow. It produces a tetanoid state by a stimulant action on the spinal cord, and not by a paralysis of Setschenow's centres. It dilates the pupil, which dilatation passes into a state of contraction upon the supervention of asphyxia. It salivates; it increases the secretion of the skin; it reduces the frequency of the pulse; it increases arterial tension by stimulation of the monarchical vaso-motor center. This increase of pressure is soon succeeded by a fall, due to a weakening of the heart itself. It soothes bronchial cough, and moderates the paroxysms in asthma and nervous cough. It has also been pronounced an excellent remedy against chronic hepatitis and obstruction of the liver. In toothache, it is an absolute specific where a cavity exists. Saturate some loose cotton with the fluid extract, and insert it in the cavity; the pain will vanish. In rheumatism, the writer has used it advantageously to produce sleep and perspiration. In sciatica and angina pectoris, it is useful, and it is probably useful to abort chills. The dose of the fluid extract is from half a drachm to two drachms. The writer's usual prescription is: Fluid extract Jamaica dogwood, ʒj; simple elixir, ʒiij. M. Sig. A teaspoonful every half hour or hour until perspiration ensues.—Dr. I. H. Egan, of Pulaski, Tenn., in *Therap. Gazette*, Aug., 1880.

The Time for Passive Motion in Fractures of the Lower End of the Humerus.—Dr. O. S. Allis does not hope for early functional return in this class of fractures. He is willing to prescribe four or six months to this class of cases. He believes that early passive motion retards rather than hastens the cure. He holds it to be much more judicious to wait until

all inflammation and soreness has subsided. Passive motion, if begun too soon, will increase the inflammatory deposit and tendency to deformity and ankylosis. While others claim that they begin passive motion in the second week, and never have ankylosis, he wishes his experience to be put alongside of theirs as never resorting to passive motion under any circumstances earlier than the fourth week. No surgeon of experience has failed to note the gradually increasing soreness that has followed untimely interference, and finally had to abandon it in consequence of the pain at all attempts to restore the function of the joint. A little time, a judicious use of liniments, douche, shampooing, etc., will bring about better results, and without the long suffering of the patient.

Dr. J. A. Ray, upon this point, remarks: In all of my cases in which I have used the permanent splint (plaster of Paris) I have left them up from four to six weeks. There is always a little stiffness of the joint after the splint is removed, which soon passes away. To show the diversity of opinion upon this subject, he quotes Fergusson and Cooper, who recommended for a child three weeks, and for an adult, four.

Dr. F. H. Hamilton thinks that within seven days, and perhaps earlier, passive motion must be commenced and persevered in daily until a cure is obtained. He further says, that in the majority of these cases it is better not to resume the use of splints after this period. For though no bony union has taken place, the effusion has somewhat steadied the fragments, while the prevention of ankylosis demands very early and continued motion.—*Annals Anat. & Surg. Society*, Aug., 1880.

Diagnosis and Treatment of Fracture of the Rim of the Acetabulum—Nicholas Senn, M. D., of Milwaukee, gives a lengthy paper on the general subject of fracture of the rim of the acetabulum in the *Transactions of the State Medical Society of Wisconsin* for 1880, from which we make the following extract:

A most thorough and critical examination while the patient is profoundly under the influence of an anæsthetic, is always necessary to establish a positive *diagnosis*. If spontaneous relaxation does not follow immediately after reduction has been accomplished, and there are sufficient symptoms present to warrant a suspicion of the presence of the injury, it would be advisable to test the functional integrity of the acetabulum by flexion, adduction and rotation of the thigh; if

any part of the rim has become defective by fracture, relaxation will be sure to take place. This manœuvre, associated with the presence of crepitus, may be regarded as the crucial test.

The differential diagnosis must consider fractures of the neck of the femur with displacement, and simple dislocation. To distinguish this fracture from fracture of the neck of the femur, it is necessary to compare their most prominent symptoms:

FRACTURE OF THE RIM OF THE ACETABULUM.	FRACTURE OF THE NECK OF THE FEMUR WITHOUT IMPACTION.
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Position of Limb.

Thigh and leg flexed, adducted and rotated inwards.	Thigh and leg straight and rotated outwards.
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Mobility of Limb.

Mobility of limb is diminished.	Mobility of the limb is increased.
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Arc of Rotation.

The trochanter rotates in its normal arc.	The arc of rotation of the trochanter is diminished.
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Crepitus.

Crepitation is not rough, and felt as the head passes over the broken edge of the acetabulum.	Crepitation is rough, and felt when the limb has been drawn down to its normal length.
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Head of Femur.

The head of the femur is felt to be displaced.	The head of the femur is normal in its position.
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Retention.

The deformity reappears if by any movement of the limb the head of the femur is made to leave the socket.	The deformity reappears as soon as extension ceases.
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History.

Is most frequent in middle life, and is the result of great violence.	If intra capsular in variety, it occurs in the aged, and is the result of slight violence.
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Crepitus and a tendency to relaxation are the symptoms on which we place the most reliance to differentiate this fracture from simple dislocation. The akystopeurastic of Middeldorpf may be of great service to determine the existence of fracture of the rim. After reduction has been accomplished, a long, stout needle is passed through the tissue to the supposed seat of fracture. By lateral movements of its points, the defect in the margin, as well as the roughness

of its surface, is ascertained. An effort should now be made to fix the detached fragment with the point of the needle, and, by rubbing it over the broken margin, a rough crepitus is elicited.

The indications to be fulfilled in the *treatment* of this class of injuries are: 1st. To reduce the dislocation. 2d. To retain the head of the femur in the socket until union has taken place between the fragments.

The dislocation may be reduced by manipulation or by extension; in both instances, flexion constitutes an important step in the operation. Bigelow says: * "These displacements, especially the displacement backwards, demands the usual attempts at reduction by flexion. Although the bone inclines to slip from the socket, it can be retained there by angular extension, with an angular splint attached to the ceiling, or some other point above the patient; or if any manœuvre has reduced the bone, the limb should be retained, if possible, in the attitude which completed the manœuvre."

In seventeen of the cases reported, the manner of reduction is specified as follows: By extension, eleven (in most of these cases extension and flexion were combined); by manipulation, two; by manipulation and extension, one; by manipulation over Sutton's fulcrum, one; by extension with pulley, two. In all but one of the cases the displacement was corrected without difficulty. In Pooley's case it was supposed that the detached fragment prevented reduction by being placed between the head of the femur and the acetabulum. In my own case, the use of the pulley was required from the length of time that had elapsed since the injury had been received. Had I been aware of the nature of the injury, no attempt would have been made to reduce the dislocation, as a restoration of the acetabulum could not be hoped for after such a long lapse of time since the injury was sustained.

Should the nature of the lesion be determined beforehand, traction in the direction of the broken edge of the rim, and rotation of the limb inwards, will readily restore the normal relation of the parts. As we possess no direct measures of keeping the fractured surfaces in apposition, all our efforts must be directed towards preventing relaxation, by appropriate position and fixation of the limb and pelvis.

If sufficient depth of the upper portion of the rim is left to serve as a support to the head of the bone, dress the thigh in the abducted position, so as to press the head of the femur

*Dislocation hip joint.

against the floor of the acetabulum. As the contusions of the soft parts about the hips and pelvis are severe, a plaster of Paris splint cannot be applied as a primary dressing. The healthy limb and pelvis should always be included in the retentive dressing.

Bonnet's wire breeches, Dzondi-Hagedorn's apparatus, or Hamilton's splint, as advised by him in the treatment of fractures of the femur in children, will be found sufficient to maintain retention.

After the swelling in the soft parts has subsided, nothing more perfect could be devised than a plaster of Paris dressing, including both limbs and the pelvis.

When nearly the entire depth of the upper or posterior portion of the rim has been detached, muscular contraction must be counteracted by permanent extension with the weight and pulley, and immobility of the joint secured by appropriate splints. In cases of this sort, angular extension with an angular splint, as advised by Bigelow, will answer an admirable purpose. The unbroken part of the rim should be made the support of the head of the femur whenever practicable, as, when the posterior part of the rim is fractured, the thigh should be dressed in the position of hyperextension, a broad, firm, pelvic band, with a compress above the trochanter, will aid in keeping the bone in place, in approximating the fractured surfaces, and in preventing muscular spasms.

The treatment should be continued for a sufficient length of time to secure a firm union, generally from four to six weeks. The patient must exercise great care in the use of the limb for a considerable length of time after all dressings have been removed, so as to obviate any undue pressure against the recently repaired rim of the acetabulum.

Extensive Sloughing of the Vagina. Recovery.—Dr. F. Peyre Porcher, late Associate Physician City Hospital, Charleston, S. C., reports (*Trans. South Carolina Med. Asso.*) the following highly interesting case, drawn out by Dr. George E. Sparkman, late House Physician at the City Hospital:

Catharine Philips, colored female, aged 18 years, was admitted to the City Hospital, Oct. 16, 1878, suffering from gangrene of the vulva. On Oct. 10th, she was seized with labor-pains, at full term, and was delivered of her first child, after an easy labor of less than twelve hours. Her attendant was an old negro woman. After delivery, she was left in a soiled condition upon the filthy bed until three or four days had

elapsed, when she experienced some uneasiness and felt some "pimples" upon the vulva. She called the attention of the woman to her condition, but what was done for her relief she does not know.

Immediately upon admission to hospital, the labia were found to be swollen, black, and sloughing, and escaping between them a purulent discharge of intensely fœtid odor, mixed with the urine, which constantly trickled away; general condition of distress; slight fever, with small, quick pulse; anæmic appearance of the mucous membranes; lips dry; tongue slightly furred, brownish white; anorexia.

The treatment was opium gr. j, and quinine gr. iij, in pills every four hours. Poultices of equal parts of flax meal and charcoal were applied locally and changed repeatedly—a few drops of carbolic acid being mixed with each poultice. In place of pure water, she was ordered chlorate potash water—(z. ij to Oi). Diet—milk, milk punch and chicken soup.

The odor from the parts was so overwhelming as to necessitate the removal of the patient from the ward to a private room, in which sheets saturated with bromo-chloralum were constantly suspended.

Oct. 20. A line of separation observed surrounding the external parts and extending inwards; general condition unchanged; continue treatment.

Oct. 24. The whole vulva and vagina, which had separated at its junction with the uterus, were thrown off, leaving a deep excavation in the perineum. The excavation is of ovoid shape, and measures across, $2\frac{1}{2}$ inches; from above downwards 5 inches, and is about three inches in depth. The greater portion of the back of the cavity is filled by a globe-shaped body, red and bleeding when touched, which we take to be the bladder; while just under the pubis is a teat-like process about half an inch long, through which the urine escapes *guttatim*. In the lower portion of the cavity is a remnant of the posterior wall of the rectum, which has suffered in the general destruction. The uterus cannot be seen. The parts were thoroughly syringed with warm carbolated water, and then packed with lint, saturated with carbolic acid and sweet oil (1 to 12.); constitutional treatment continued; beef essence and custards added to diet.

Oct. 30. The parts have been cleansed regularly as often as necessary, and the woman feels stronger; appetite beginning to improve. She can control the fecal evacuations, and the feces are well moulded; the urine continues to escape.

The opium was now stopped, and quinine continued in

gr. ij. doses *ter die*. Granulations began promptly from the edges, and the cavity is gradually growing smaller.

Dr. Rose, who succeeded as House Physician, reports that no material change in the treatment was subsequently required.

She was discharged January 30, 1879, greatly relieved if not cured; the cavity was nearly filled up; she could not retain her urine well, but she could walk with ease and was fat and hearty, and with a good appetite. Her condition, as reported by Dr. Rose, was as follows: The anterior wall of the rectum had sloughed out, a species of prolapse of the bladder ensued—granulations from the bladder seeming to bridge over the vagina and fill up its cavity, so that the uterus could not be seen nor felt.

The mass which sloughed out when the patient was first admitted, was nearly eight inches in length and two to three inches in thickness.

Life in Public Schools, etc.—Dr. C. J. Lundy, Professor of Diseases of the Eye, Ear and Throat in the Michigan College of Medicine, Detroit, contributes a paper, which should be popularized for the public good, to the *Report of the Michigan State Board of Health*. He says:

“In conclusion, I would add, by way of recapitulation, that if we would prevent, to a very great extent, the ill effect which school life and close application to study exert upon the visual organs, the following rules should be observed:

1. Lessen the hours of study and shorten the sessions of study for pupils under fifteen years of age.

2. Provide an abundance of light, from the left side if the room is quite narrow, from both sides if the room is wide, but do not allow the sunlight to fall directly on the book or paper.

3. Ventilate the school-rooms thoroughly, and in accordance with the most approved method.

4. The pupil should sit erect, and should hold the book at least twelve inches distant.

5. Pupils should avoid whatever causes a congestion of the head, face and eyes, such as tight clothing, cold feet, the stooping position, etc.

6. Pupils should not study during recovery from illness, or when suffering great bodily fatigue.

7. Text-books and readers should be printed in good ink, and with a clear, bold type, about the size of long primer, a little larger than one-sixteenth of an inch.

8. Pupils should avoid everything which has a debilitating effect upon the general system.

9. Exercise in the open air should be taken freely, and every precaution should be used to keep up the bodily vigor, something which is too often neglected. An education is dearly purchased whose price is a shattered constitution and a ruined eyesight."

Pilocarpin in the Treatment of Prurigo.—Prof. Dr. Oscar Simon (in *Berlin. klin. Wochenschrift*, 49) was led to try pilocarpin in prurigo, because there is in this disease a decrease of the perspiration, and because pruriginous patients always feel better when their perspiration is increased. In adults, he made daily an injection subcutaneously of 0.02 pilocarpin muriat.; to children, he gave one to two tablespoonfuls of the syr. jaborandi (3 parts leaves jaborandi, 15 parts water, and 18 parts sugar). After each dose, the patient was wrapped in woollen blankets for 2–3 hours. The usual action of the jaborandi followed each time. The violent itching was lessened, or disappeared entirely with the first dose. The exanthema soon became less, the skin smooth, and the inguinal glands less swollen, so that in 2–4 weeks complete involution took place, and only very severe cases needed longer treatment. The combined use of tar, baths, etc., hastened the cure. Pilocarpin is not an absolute cure in all cases, for relapses occur; but Simon opposes Hebra and other dermatologists by claiming that even the most characteristic cases of prurigo in children *can* be cured. He admits that in the first year the diagnosis cannot be certain, for prurigo may be confounded with lichen urticarius, but he has had cases in the second and third year, where there was no doubt of the diagnosis, and in which he has succeeded in effecting a cure. He formulates his opinion thus: "Prurigo which has continued past the fourth year of life is incurable. Before the fourth year, even severe cases may, though rarely, be cured." *Amer. Journ. Obstet.*, Oct., 1880.

Fluid Extract of Coca for Opium Habit.—The treatment of opium inebriety with a fluid extract of coca is just at this time exciting much interest. In the July number of the *Medical Summary*, Dr. E. R. Palmer urges a trial of this remedy. In his hands it has shown itself to be the best plan of thoroughly curing and eradicating the opium habit; and as no relapse occurred, it may fairly be considered a curative agent, and one which entails no suffering upon the patient.

Chian Turpentine.—Mr. William Martindale, under date, of Chio, September, 1880, writes to the *Pharmaceutical Journal and Transactions*: “Since I published some notes on the above drug (*Pharm. Journ.* [3], vol. x, p. 854)—which still is much in request, and until lately not to be had in market, although some of the genuine article is now offered at a high price—I have received the following account of it, and the probable supply this season, from M. D. Spado, French Consul at Chio. The account tallies pretty well with that which I published before, and the supply, although not large this year, could, if required, be much increased: ‘This drug has not been collected in our island for many years, and I believe the greatest quantities of Chian turpentine, sold as such in England, were mere falsifications, or another kind substituted for it. Chio may possess about 1,000 turpentine trees, some exceedingly old—up to eight hundred or nine hundred years—and varying from one-half yard to ten and twelve yards in circumference. These trees, when well cultivated, may give from two to three kilograms [from 5½ to 8 pounds *Troy*] of turpentine (a year?). The turpentine is collected by incisions made in the trunk of the tree about April, which are renewed every year. The fruit of this tree, when ripe, is collected and pressed in the same way as the olives; it gives a magnificent oil, very much liked by the inhabitants, and often employed instead of butter. As soon as the fruit begins to get ripe the flow of the turpentine ceases. This happens about the middle of August.

“‘This year the inhabitants have been surprised to receive orders for the collection of turpentine, as it has been asked for in England and bought at the rate of 6s. the oke (or 1600 grams). The island has not produced over 700 or 800 kilograms this year, as many have not been informed in time to incise the tree. Owing to its cheapness, the possessors of these trees do not give themselves too much trouble in collecting it clear, and they let it flow on the sand, which is taken with it. We have not the means to get it cleared, and are obliged to send it as it is collected.’”—*Amer. Journ. Pharm.*, Nov., 1880.

Manaca.—The use of this drug in the treatment of syphilis and rheumatism is daily exciting more and more attention and daily winning more confidence as an alterative. In syphilis its curative effects have been so startling as to win for it the name of mercurio-vegetal, and in rheumatism its remedial power has been no less marked.

New Method for Withdrawing Fluids from the Middle Ear.

Dr. Charles Denison, of Denver, Col., states (in the *Rocky Mountain Medical Review*) that last winter, in the act of blowing his nose—having a cold at the time—catarrhal or other secretion was forced through the Eustachian tube into the middle ear, causing pain which was not relieved by the usual palliative measures. The experiment which gradually overcame the difficulty was this: Attaching the flat nozzle used with Pollitzer's air-bag to the exhaust bottle of his aspirating apparatus, he first exhausted the air from the bottle, and then compressing the alæ of the nose, with the nozzle introduced so as to wholly exclude air from without, he closed his throat as in the act of swallowing, and kept it so, and at the same time directed the stop-cock to the vacuum bottle to be turned on. The effect of thus transferring the vacuum to the middle of the head was decided, seeming to draw everything inwards towards the pharynx and nasal passages, creating a temporary congestion of those parts. But the pain in the ear was perceptibly lessened by the experiment, and on its repetition finally wholly disappeared. He thinks that the effect was mechanical, and that a small portion of the fluid was probably drawn into the Eustachian tube at each operation. Since that time, he has tried the experiment in practice as opportunity has offered, and mainly with results similar to those above mentioned. In one instance, he believes the stage of suppuration had set in, for he intended to puncture the membrana tympani the next day after this operation had been tried. But the patient did not return, and he found some time afterwards that improvement had continued from that time till she wholly recovered.

Antiseptic Excision of the Knee Joint.—In the September issue of the *Proceedings of the Medical Society of the County of Kings*, we find a striking article upon this important subject, by Dr. G. R. Fowler. He draws the following deductions from his experience and study: 1st. The total mortality in excision of the knee-joint has diminished about one-third since the introduction of Listerism into surgical practice. 2d. The majority of the fatal cases operated upon antiseptically died of a pre-existing disease or complication. 3rd. Total cases directly referable to the operation, and from causes such as are now considered preventable by antiseptic treatment are reduced fully fifty per cent. 4th. The functional result is not influenced in a very marked degree by Listerism.

Radical Cure of Varicocele by the Galvanic Ecraseur.—In a clinical lecture delivered at Westminster Hospital, July 3d, 1880, Dr. A. P. Gould claims for this method advantages over all others. While admitting that there are many cases in which only palliative treatment is called for, there are others calling for a radical cure. These cases are as follows: Where the testicle is atrophying; where the varicocele is double, especially if an examination of the semen shows an absence of spermatozoa, or the patient being married is sterile; where the opposite testicle is lost or useless from tumor, orchitis, epididymitis or injury; where the varix is large and increasing, in spite of palliative treatment; where the varix causes much pain or interferes with proper exercise and necessary work; where it is the occasion of marked mental depression; where it prevents acceptance for any of the government services.

Sir James Paget, in his *Clinical Lectures and Essays*, page 69, says, "varicocele can, in a majority of cases, be perfectly well managed with a ring, or a truss, or suspensory bandage and cold water, and the operation may be wholly dispensed with. No varicocele, in his opinion, ever caused impotence or wasted a testicle. He doubts whether ninety-nine operations for varicocele would do good enough to balance one such calamity as we sometimes have; for of the ninety-nine operations the majority would have been quite unnecessary."

Both Paget and Gould lay stress upon the dangers of the operation as it is usually performed. Gould's method consists first in separating the veins and vas deferens; then through a puncture made with a bistoury, pass a needle armed with a platinum wire around the veins and bring it out of the puncture. We have thus encircled the veins within the loop of wire. Then attach the ends of the wire to the ecraseur, and connect with the battery, using sufficient cells to cause a faint, hissing noise. It should take five or six minutes to burn through. He recommends this operation because of its entire painlessness after the few minutes of its actual performance, and because it fulfills the physiological indications better than any other method. The closure of an open vessel by the hot wire or iron is a particularly safe plan.—*Medical News and Abstract*, Sept., 1880.

Arsenic Hypodermically in Traumatic Tetanus.—Dr. John T. Hodgen, of St. Louis, Mo., contributes to the October No., 1880, of the *Alienist and Neurologist*, notes of a case of comminuted fracture of the upper third of the femur and of the

os calcis, with intercurrent tetanus, in a robust, healthy man, aged 34 years, who was successfully treated by hypodermic injections of arsenic—the patient, however, subsequently dying of septicæmia. The patient was injured on September 14th. On the 28th, trismus and opisthotonus appeared. Dr. Shore gave the patient some morphine during the night. On the 30th, Dr. Hodgen, for the relief of the persistent tetanic rigidity, injected at 12:30 P. M. ten drops of Fowler's solution of arsenic, ordering also thirty grains of chloral every hour if patient was not asleep. At 4 P. M., the patient was much more comfortable, though still rigid. He had taken 120 grains of chloral. Ten drops more of the arsenic solution were then given, and the chloral discontinued. At 8 P. M., another ten-drop dose of the arsenic was given hypodermically. At 12 and 8 A. M., Dr. Shore repeated the arsenic, and at 12 M. the patient was quite free from rigidity, rational and talkative. At 4 P. M., another hypodermic injection was given. At 8 P. M., another tetanic spasm occurred, when Dr. Shore repeated the hypodermic dose. At 10 A. M., October 2d, the arsenic was again repeated, and the patient was free from rigidity. Vomiting took place at 4 P. M. Arsenic was given at 10 P. M. On October 3d, 8 A. M., patient had a good night, takes food freely, and has no rigidity. To-day, however, the thigh is distended with fluid and tympanitic on percussion, and the patient is restless and inclined to delirium. On the 4th of October, decided symptoms of septicæmia set in, and the patient died Oct. 5th at 2 P. M.

Remarking on this case, Dr. Hodgen says: "The effect of arsenic was most marked, the symptoms being decidedly improved after the second dose. For many years I have used arsenic in the treatment of tetanus, but never hypodermically. Dr. Barnes, of this city, first called my attention to it as a valuable remedy in this affection. Its hypodermic use was first practised and recommended by Dr. —, of Boston."

Calcium Salicylate in the Serous Diarrheas of Infants.—Dr. Alexander Hutchins thinks, from the fact that he has treated in private practice, within the past three months, twenty-seven cases of serous diarrhea in infants, ranging from two months to two and a half years, and from the fact that in all, the disease is known to have been promptly and permanently controlled, he is warranted in putting his experience on record. Whenever the dejecta are of a serous character, and there is a tendency to cholera infantum, or when collapse

is to be looked for from excessive drainage of the serum, the calcium salt acted promptly in checking the frequency of the movements and ultimately in controlling them. It was noticed that the medicine seemed to have no influence in changing the secretions so as to modify the character of the evacuations. It was also noted that this treatment necessitated very little interference with the usual diet of the child. It was further noticed that the calcium salt had no appreciable effect on any one of the other forms of intestinal flux, whether lienteric or inflammatory. The serous diarrhœa alone seemed to be amenable to this drug. An additional fact was noted, that the vomiting accompanying these diarrheas was controlled so soon as the medicine began to show its effects on the discharges, and the stomach tolerated the drug well. In all of the cases the dose was from three to five grains every two to four hours. The reading of this paper prompted a free discussion, and many gentlemen present expressed views confirmatory of those embodied in it.—*Proceedings Medical Society, Co. Kings, Sept., 1880.*

Dialysed Iron Hypodermically.—Dr. J. J. Mulheron reports in the *Therapeutic Gazette*, May, 1880, the successful use of dialysed iron hypodermically, and thinks it possesses a very important advantage over the other chalybeates. In anæmia where there is a pressing demand for iron, and the alimentary canal is not in a condition to absorb it, the hypodermic use of dialysed iron is available. Before administering it in this manner, be sure that the preparation will not redden litmus paper. With this precaution we need not apprehend the irritation and abscesses which have been known to follow this method.

Domestic Remedy for Felons.—Dr. T. C. Brannon says, in the *Therapeutic Gazette*, July, 1880, that for twenty years he has used the following simple treatment: Take of soft lye soap and flaxseed meal a sufficient quantity. Stir in the meal slowly and thoroughly so as to form a salve or poultice; envelop the finger in this, applying snugly, and occasionally pressing it to bring it completely in apposition, and renew it every twelve hours. The escharotic properties of the soap soon destroy the thick skin over the region of the disease, and accounts partly for the quick relief of pain. Besides this, the agent is partly absorbed and thus affects more or less the disease process.

Chian Turpentine in Cancer of Breast.—Mr. M. J. Hardwick (Bury St. Edmunds) records a case of scirrhus mamma, in which he prescribed the above drug with apparent benefit. The breast for some years had been the seat of some induration, and during the past two years had been rapidly enlarging and becoming very painful. It was twice the size of its fellow, exceedingly hard, the nipple retracted, and an open sore existed on the side of the nipple. The axillary glands were enlarged and the cancerous cachexia well marked. Chian turpentine was administered according to the formula of Prof. Clay. In a few days the pain ceased. She lost the worn, haggard look, the breast quickly diminished in size and became soft, and the enlarged glands disappeared. When last heard from her improvement continued uninterrupted.—*Therapeutic Gazette*, July, 1880.

Book Notices, &c.

Hints in the Obstetric Procedure. By WM. B. ATKINSON, A M., M. D., Physician to Department Obstetrics and Diseases of Women, Howard Hospital, Philadelphia. 12mo. Pp. 121. Philadelphia: D. G. Brinton, 1879. (From Publishers.)

These "Hints," after a careful reading of the book, we regard as very valuable to every general practitioner. What is said is tersely said, as should be the case in a *hint* book. Our only criticism of the work as presented is, that it would be preferable if published in the form of a "*pocket* edition" so that city doctors might carry it around in their buggies, or in their pockets, and country doctors in their saddle bags, in order that the book might be serviceable as a "ready reference book," just as a "table of antidotes to poisons" is valuable in every "Visiting List." No one man, whether he be a professor of obstetrics or a constant *student* of obstetrics, if he happen to be a *general* practitioner of medicine as well, can possibly recall at the proper time all the little suggestions or hints that are taught him by his journal reading or his examination of any *one* of the larger books. Within the two or three months we have had the book, before we had space to notice it, we have found it of incalculable service to us in our practice. We most cordially recommend these *Hints*.

The Throat and its Functions in Swallowing, Breathing, and the Production of Voice. By LOUIS ELSBERG, A. M., M. D., Professor of Laryngology and Diseases of the Throat, Medical Department, University of New York. Illustrated by Twenty-five Wood-cuts. New York: G. P. Putnam's Sons, 1880. 12mo. Pp. 60. Price, \$1.25. (For sale by Messrs. West, Johnston & Co., Richmond.)

This little book consists of a lecture delivered before the Young Men's Christian Association in 1879—it being one of the course of popular scientific lectures instituted by the New York Academy of Sciences. Notwithstanding its general public feature, it is very useful to every general practitioner; for it contains, in a summary form, a statement of a great many important truths, of which the *usual* practitioner of medicine is perfectly ignorant, with the exception, perhaps, of the technical terms. Had this lecture been delivered before a State Medical Society, those present would have been clamorous for its publication. We have nothing to do with the business arrangements of the publishers, relating to the terms of its publication; but we venture the advice, with most kindly feelings to the Putnam's Sons, and with a sense of duty to the profession we represent, that had the price of the book been less, it would have had a more general sale when it was fresh from the press. The author himself is too popular in his specialty not to have put the book in demand had other circumstances, in part alluded to, been equal. But as the book stands, even though it contains only sixty pages, it is worth \$1.25 to every general practitioner.

What to do First in Accidents or Poisoning. By CHARLES W. DULLES, M. D., Surgical Registrar to Hospital University of Pennsylvania. Philadelphia: Presley Blakiston. 1880. 16mo. Pp. 70. (For sale by West, Johnston & Co., Richmond.) Price 50 cents.

Such a book as this should be owned by every family, and its teachings should be familiar in the household. Besides the useful empirical directions it gives to the non-professional, a reference to them on the part of the physician when he is hastily called may be of service in furnishing a practical suggestion. We are always in favor of popularizing a general knowledge of medicine, not only because of the good which the individual may derive from such knowledge; but also because when the physician sees his patient knows as much as he does, it stimulates the doctor to study in order to acquire more information.

Skin in Health and Disease. By L. DUNCAN BULKLEY, M. D., Attending Physician for Skin and Venereal Diseases, New York Hospital, etc. Philadelphia: Presley Blakiston. 1880. 16mo. Pp. 148. Price 50 cents. (For sale by West, Johnston & Co., Richmond.)

School and Industrial Hygiene. By D. F. LINCOLN, M. D., Chairman Dept. Health, Social Science Association. Philadelphia: Presley Blakiston. 1880. 16mo. Pp. 152. Price 50 cents. (For sale by West, Johnston & Co., Richmond.)

Both of these belong to the series of "American Health Primers," which are being so ably edited by Dr. W. W. Keen, of Philadelphia.

The first of these "Primers" is a specially valuable one. It contains in a concise form, and in plain terms, a first-rate description of most of the skin diseases met with in general practice. We commend this hand-book most cordially to the public and profession. An excellent index is added.

The second of the above named "Primers," if we could induce the non-professional to read and study it, would prove of great service. The author does not take any extreme or sensational view of his subjects; but by fair deductions from known facts, presents salutary advice, which we wish we could get our parents and school authorities to heed. Then we would have a race of healthy men and women.

Diseases of the Throat and Nose. By MORELL MACKENZIE, M. D., Lond., Senior Physician to Hospital for Diseases of the Throat and Chest, etc. In two Volumes. Vol. I. Philadelphia: Presley Blakiston. 1880. 8vo. Pp. 570. Price \$4. (For sale by West, Johnston & Co., Richmond.)

Only the first of the two volumes is as yet published; but the second volume, which treats of the diseases of the œsophagus, nasal cavities and neck, is announced to be in press, and will be shortly published.

This first volume is devoted to diseases of the pharynx, larynx and trachea. It is well written—chiefly from a clinical point of view—and is thoroughly practical in its teachings. We are struck, however, with the recommendations in regard to the early treatment of syphilis of the larynx, which are re-asserted in regard to syphilis of the larynx. He says "the surgeon will either adopt or abstain from mercurial treatment, according to his views with regard to the action of that drug." So thoroughly convinced is the majority of the profession in this country of the value of mercury in all of the earlier manifestations of syphilis, that the practitioners

on this side of the Atlantic will, for the present at least, "adopt" the mercurial treatment. To quote the author who has followed Prof. Sigmund's practice since 1859-60, he has become convinced, "(1) That specific antisymphilitic treatment is only required when serious constitutional symptoms are present; (2) that specific treatment in the early stages does not ward off the later manifestations of the affection; (3) that local treatment, analeptic remedies and hygienic measures are of the utmost importance; (4) that the disease itself, except under unfavorable circumstances, tends towards spontaneous cure; and (5) that the development of serious pathological changes depends on conditions inherent in the patient himself." Further on, however, he considers "mercury a valuable, and, in some cases, an indispensable remedy in syphilis."

To this volume is appended some "special formulæ for topical remedies." It has also a copious index, which always greatly facilitates ready reference. Numerous wood-cuts of instruments, of diseased conditions, and of positions in operations are scattered throughout the volume. We may add, also, that the work is a complete, systematic treatise on the subject of which it treats, and will no doubt be adopted as a text or reference book in our leading colleges.

Venereal Diseases, Including Stricture of the Male Urethra.

By E. L. KEYES, A. M., M. D., Professor of Dermatology and Adjunct Professor of Surgery in Bellevue Hospital Medical College, etc. New York: Wm. Wood & Co. 1880. 8vo. Pp. 348. (From Publishers.)

This is a complete work on venereal diseases, prepared by a thoroughly capable and distinguished author, and nicely published, at a remarkably small price. It forms one of the series of "Wood's Library of Standard Medical Authors," which series has justly become very popular, because of the eminence of the authors and the careful study and general attention they devote to their work. Dr. Keyes of course holds to the dual theory—that of chancre and chancre as two distinct diseases. His description of these different diseases is very graphic, and he brings out their distinctive features with remarkable clearness. His plans of treatment are based on experience. With Sigmund, Zeissl, and others, the author shares the opinion that syphilis is a self-limiting malady. Many a person, he says, "gets syphilis without knowing it, and runs through the disease into health without any specific treatment at all." Mercury in small doses he regards as a

tonie and as having special power beyond that of a tonie in modifying the secondary symptoms or signs. In regard to the prevention of the spread of the disease, he maintains with force that houses of prostitution should be subject to close and constant scrutiny by officers responsible to the State. The chapter on the treatment of stricture contains excellent advice. We most gladly avail ourselves of this opportunity to advise every reader of this notice to purchase the book and study it carefully. Profit will be derived from such a study.

The Brain as an Organ of Mind. By H. CHARLTON BASTIAN, M. A., M. D., F. R. S., Professor of Pathological Anatomy, and of Clinical Medicine in University College, London, etc. With 184 Illustrations. New York: D. Appleton & Co. 1880. 12mo. Pp. 708.

This work is full of interest, instruction and suggestion to every student of mental science. It includes a statement of the latest views and discoveries in brain anatomy and mental physiology, and shows the bearing of these facts upon the subject in hand. The deductions of the author all favor the now generally recognized theories of free-will, duty and moral obligation, together with the underlying powers of self-education and self-control.

We should add that this volume has been sent us through the new, pushing and thriving book-house of this city, Mr. Carlton McCarthy, to whom orders may be addressed with full confidence that they will be promptly attended to, at as reasonable rates as by any other first-class book-seller in the State.

Practical Treatise on Nasal Catarrh. By BEVERLY ROBINSON, A. M., M. D., Lecturer upon Clinical Medicine Bellevue Hospital Medical College, etc. New York: Wm. Wood & Co. 1880. 8vo. Pp. 182. (From Publishers.)

All readers of American medical journals have become familiar with the name of Dr. Robinson, and recognize him as an authority in the special line of practice suggested by the title of this monograph. The book contains references to the suggestions of a number of distinguished authors on both sides of the Atlantic; but its recommendations as to treatment are such as the author himself has, for the most part, tested in practice. We regard this as a useful contribution to medical literature, and as a book of service to practitioners generally.

Treatise on Common Forms of Functional Nervous Diseases.

By L. PUTZEL, M. D., Physician to the Clinic for Nervous Diseases, Bellevue Hospital Out Door Department, etc. New York: Wm. Wood & Co. 1880. 8vo. Pp. 256. (For sale by West, Johnston & Co., Richmond.)

This is one of the volumes of "Wood's Library of Standard Medical Authors," which, by this time, is familiar throughout the entire reading part of the American profession. It treats of chorea, epilepsy, neuralgia and peripheral paralyses. Dr. Putzel has done his duty well, going just sufficiently into details of description to give interest to his subject, and to furnish the foundation for his conclusions. The book is to be commended to every practitioner. An index is appended which materially helps one who wishes to make a ready reference.

The Art of Prolonging Life. By CHRISTOPHER WM. HUFELAND, edited by ERASMUS WILSON, M. D., author of a System of Human Anatomy, etc. From last London Edition. Philadelphia: Lindsay & Blakiston. 1880. 12mo. Pp. 298. Price \$1. (For sale by West, Johnston & Co., Richmond.)

This work, though the original is nearly a century old, has the charm of a novel, while it contains lessons which the progress of study for over eighty-five years has scarcely improved upon. The editor, however, has filled up some of the gaps in the author's writings, or has corrected, chiefly by the addition of foot notes, such errors as he may have committed.

Student's Dose-Book and Anatomist Combined. By C. HENRI LEONARD, A. M., M. D., Professor of Medical and Surgical Diseases of Women, etc., Michigan College of Medicine. Detroit. 1880. 16mo. Pp. 160. Price \$1. (From Author.)

This book is one of those little pocket-books containing *multum in parvo*. It has a list of new remedies, the metric system in a nut-shell, list of doses, different preparations, pharmaceutical remarks, incompatibles, poisons and their antidotes, tests for urinary deposits, etc. Then there is an obstetric department, which gives a good deal of useful information, etc. This is followed by an index. Then comes the part that is devoted to anatomy, which part is founded on Gray's great book. Such a book will always pay to have about the person. It serves a first-rate purpose when called in an emergency, without having an opportunity to examine any of the larger books.

Index-Catalogue of the Library of the Surgeon-General's Office, U. S. Army. Authors and Subjects. Vol. I. A—Berliniski. With a List of Abbreviations of Titles of Periodicals Indexed. Washington. 1880. Royal Quarto. Pp. 888. Double column. (From the Surgeon-General's Office.

The true credit of compilation of this immense volume—yet only the beginning of a series of equal size, etc.—is to be accorded to Dr. J. S. Billings, Surgeon U. S. Army. He has worked hard and done his duty with remarkable fidelity. The Catalogue will prove invaluable to every one who is engaged in medical research. Not only are the subjects of articles indexed, but also the names of authors. The expenses of publication are met by a special Congressional appropriation. Hence, in order to get copies, it is right for each physician to apply directly to his respective Congressman. This Catalogue has a value to the students of medical literature scarcely second to a good lexicon.

Complimentary Dinner Given to Prof. S. D. Gross. By his Medical Friends in Commemoration of his 51st Year in the Profession. April 10, 1879. Philadelphia: Lindsay & Blakiston, 1879. Cloth. 8vo. Pp. 42.

This handsomely published book details all the toasts and responses made on this eventful occasion. The entire profession of the country unite in doing honor to this great and good man. The remarks made on the occasion by some of Prof. Gross's friends of early life show how much of his greatness in riper years has been due to hard study and constant attention to his own business. May he be spared yet many years to bestow his benefactions and to enjoy the honors which a grateful nation have gladly showered upon him!

Compend of Anatomy. By JOHN B. ROBERTS, A. M., M. D., Lecturer on Anatomy, etc., Philadelphia School of Anatomy, etc. Philadelphia: C. C. Roberts & Co. 1880. 16mo. Pp. 191. (From Publishers.)

This little book is intended for use in the dissecting room and in preparing for examinations. For the most part, it is an abbreviation of Gray's standard work, although frequent reference has been made to such authorities as Holden, Heath and Flowers, some of the descriptions have been taken from the structures themselves. We like the mode of arrangement very well for the purpose for which the book is designed. Much of it is in tabular form—especially the muscles and nerves. This compend serves an admirable purpose under any circumstances, as aid to the memory. We are

often asked by graduates who propose standing an early examination for positions in the army and navy, to recommend some anatomical brief. This little book, we are confident is what is needed by them. An index would be an improvement, so as to facilitate hasty referenees. In the several instances in which we have tested its aceuracy by other established authorities, we have found it to be correct. As a rule, Latin terms have been substituted by the appropriate English names.

Walsh's Physicians' Combined Call Book and Tablet, and his *Handy Ledger* are received. We have already said that they are the best of the kind. Having now used them for two years, after having used other visiting lists and ledgers, we wish simply to repeat this belief. Price of Call Book, \$1.50; of the Ledger, \$3. Address Dr. Ralph Walsh, 326 C Street, Washington, D. C., and remit by postoffice money order or registered letter.

PAMPHLETS, REPRINTS, ETC., RECEIVED, for which we have no room for further notice, but most of which can be obtained by enclosing a letter stamp for each pamphlet to the respective authors named.

Clinical Observations on the Radical Treatment of Fibroid Tumors of the Womb. By WM. GOODELL, M. D., Philadelphia. Pp. 12.

Report of Ten Cases of Gastric Ulcer; One Case of Malignant Ulcer of the Stomach; and Two Cases of Perforating Ulcer of the Jejunum. By A. VAN DERVEER, M. D., Albany, N. Y. Pp. 16.

Anæsthesia by Ethyl Bromide. By H. AUGUSTUS WILSON, M. D. Philadelphia, Pa. Pp. 7.

Explanation of a Simple Method for the Diagnosis of Organic Valvular Diseases of the Heart. By F. PEYRE PORCHER, M. D., Charleston S. C. Pp. 6.

Pathological Histology of Acute Parotitis. By EDMUND C. WENDT, M. D., New York, N. Y. Pp. 16.

A Case of Puerperal Eclampsia. By JOS. EVE ALLEN, M. D., Augusta, Ga. Pp. 9.

Suggestions on the Management of Natural Labor. By J. W. SINGLETON, M. D. Paducah, Ky. Pp. 16.

Practical Hints Relating to Yellow-Fever Prevention. By ROBERT B. S. HARGIS, M. D., Pensacola, Fla. Pp. 9.

Ship Origin of Yellow Fever. By same. Pp. 19.

Further Contribution to the Study of Fractures of the Inferior Extremity of the Radius. Differentiation of Longitudinal

- and Transverse Fractures and the Causes which Produce Them.* By L. S. PILCHER, M. D., Brooklyn, N. Y. Pp. 16.
- Lunacy Reforms.* By E. C. SEGUIN, M. D., New York, N. Y. Two pamphlets. Pp. 12-9.
- Notes on the Anatomical Relations of Uterine Structures.* By T. H. BUCKLER, M. D., Baltimore, Md. Pp. 34.
- Peptonized Milk as Food for Infants and Invalids.* By R. J. NUNN, M. D., Savannah, Ga. Pp. 20.
- Diagnosis of Malignant Tumors of the Upper Jaw in Youth.* By L. McLANE TIFFANY, M. D., Baltimore, Md. Pp. 8.
- Complete Inversion of the Uterus, with Remarks upon the Modern Treatment of Chronic Inversion* By CLIFTON E. WING, M. D., Boston, Mass. Pp. 12.
- New Study of Cerebral Cortical Localization, the Effect of Willed Muscular Movements on the Temperature of the Head.* By R. W. AMIDON, A. M., M. D., New York, N. Y. Pp. 57. (From Publishers, Messrs. G. P. Putnam's Sons, New York Price 30 cents.)
- Bathing, Cupping, Electricity, Massage in Debilities, Deformities and Chronic Diseases.* By DAVID PRINCE, M. D. Jacksonville, Ill. Pp. 16.
- Thermantidote.* By H. P. C. WILSON, M. D., Baltimore, Md. Pp. 12.
- Valedictory Address.* By W. F. McNUTT, M. D., etc., San Francisco, Cal. Pp. 8.
- Internal Use of Water for the Sick, and on Thirst.* By J. FORSYTHE MEIGS, M. D., Philadelphia, Pa. Pp. 54.
- Malignant Degeneration of a Fibroid Tumor of the Uterus. Large False Aneurism in the Substance of the Growth.* By Drs. ALBERT N. BLODGETT and CLIFTON E. WING, Boston, Mass. Pp. 8.
- Protest Against Meddlesome Midwifery.* By H. GIBBONS, Sr., M. D., San Francisco, Cal. Pp. 11.
- Laryngeal Hæmorrhage.* B. J. H. HARTMAN, M. D., Baltimore, Md. Pp. 4.
- Claims of Science for its Own Sake upon the Medical Profession.* By JOHN W. MALLET, M. D., University of Va. Pp. 38.
- Mechanical Treatment of the More Common Abnormal Conditions of the Foot.* By CHAS. FRED. STILLMAN, M. D., Plainfield, New Jersey. Pp. 16.
- Rise of American Dermatology.* By LEWIS A. DUHRING, M. D., Philadelphia, Pa. Pp. 39.
- State Medicine and State Medical Societies* By STANFORD E. CHAILLE, M. D., A. M., New Orleans, La. Pp. 59.
- Some Points in Connection with the Treatment of Sterility.* By A. REEVES JACKSON, A. M., M. D., Chicago, Ill.

Editorial.

The Medical Society of Virginia held its eleventh annual session in the city of Danville, Va., October 19th—22d, 1880. Meeting on the southern border of the State, with no further southern district of the State from which to draw members, and wanting in direct railroad or other steam communication with the many counties east and west, the assemblage of physicians was not large—probably not more than sixty; but this attendance fully equalled the expectations of those acquainted with the facts. Throughout the entire eastern section of the State, the usual autumnal prevalence of malarial diseases prevented many physicians from attending the session who would otherwise have been present. This suggestion should be taken into consideration by those having the authority to appoint the time of subsequent meetings. Besides this fact, which affects attendance during the fall from almost all the eastern counties of the State, it should be remembered that attendance of the physicians further west, upon the annual meetings, when held in the month of October or the early part of November, is diminished by the occurrence of the several agricultural fairs which almost always attract large crowds from the neighboring communities. For instance, we have authority for stating that the occurrence of the Lynchburg Fair during the same week as that appointed for the meeting of the Medical Society, prevented several members resident in Lynchburg and the adjoining counties from attending the Society's session. When the Society's interest is at stake, and the good of the whole profession of the State is to be promoted, such facts as those referred to should be taken into account. Sometimes, at least, the Society might meet during the summer months, when practice is dull, and families for the most part are spending their time away at the summer resorts, and when other engagements are few. What State is more blessed with summer resorts than Virginia—both in the eastern and western sections! And there are few, if any, of summer health resorts that would not offer inducements for the meetings of the Society to be held at them.

The entertainments in Danville—from the welcoming address by Dr. Wm. L. Robinson, President of the local Society, to the close of the elegant banquet on Thursday night—surpassed anything that has ever yet occurred in the history of the Society. Not only the resident physicians, but the citi-

zens generally manifested a cordial hospitality that has never before fallen to our lot to witness. In addition to these social pleasures secured by the meeting in Danville, a great advantage was gained by the Society itself. We do not recall that there is a single eligible member of the profession of that city that was not gathered into Fellowship. The Society, in short, made a clean sweep of the profession of that thrifty and rapidly growing community.

In the way of visitors, the Society had the honor of having in attendance, as fraternal delegates, two of the most distinguished members of the Medical Society of North Carolina—Drs. R. L. Payne, of Lexington, N. C., and Henry T. Bahnson, of Salem, N. C.

In regard to addresses, papers, etc., presented, we ought scarcely to do more than to say that they were all good. Dr. L. Ashton, of Falmouth, in his Address to the Public and Profession, made a first-rate impression. The Address of the President, Dr. Henry Latham, of Lynchburg, contained suggestions of great practical moment to the profession at large, and of special interest to the members of the Society. Dr. Thos. J. Riddell, of Richmond, read a paper recounting somewhat the facts connected with his individual effort to secure desired legislation; and conclusively showed that had the Society combined as one man in the effort, satisfactory measures of legislation might have been secured. Dr. Joseph A. White, of Richmond, presented a very interesting paper on Asthenopia, many of the points of which he illustrated by drawings on the blackboard. Dr. Wm. C. Dabney, of Charlottesville—always a progressive student of medicine—gave an admirable paper on Cerebral Localizations, which was illustrated by suitable drawings. Dr. G. Wm. Semple, of Hampton, was the only one of the six Reporters on Advances, appointed last year, who presented a report. His report was on Advances in the Practice of Medicine, and furnishes an excellent resumé of what has recently been brought to light in the line of practice. It is proper, however, to remark, that Dr. Geo. Ben. Johnston, of Richmond, reported progress in his report on Advances in Surgery, and, on motion, he was allowed time to complete his paper, and present it to the Committee on Publications. Dr. Wm. L. Robinson, of Danville, read a paper describing the recent endemic of typho-malarial fever as it has been prevailing in his community. Dr. Charles R. Cullen, of Hanover county, presented a paper on New Remedies, which was highly appreciated and well received. Some other pa-

pers were presented and read by titles; but a resolution was adopted that hereafter papers would not be received by the Society unless the authors were present or unavoidably prevented from attendance.

The discussion of the regularly selected subject—Summer Complaint of Children—elicited an unusual amount of interest. Six or eight Fellows took part. Two or three of the speakers showed that they had studied the subject, and made good points. Some others, however, spoke entirely “off hand,” and did not seem exactly to know what position they occupied or whither they were tending. It is well that every practitioner should systematize his readings and his experience; and then he is apt to let drop—even if unprepared to speak on the subject—some remark or suggestion which will be useful to some hearer. The discussion continued for about two hours; and still such an interest was felt in the subject that it was continued over as the regularly selected subject for discussion at the next annual session.

As regards business matters, Dr. Hunter McGuire, of Richmond, was elected President for the ensuing year by an almost unanimous vote. This is the first time since the organization of the Society that the resolution, adopted during the session 1879, requiring the nomination and election of the President in open session instead of by a Committee appointed for the purpose, has gone into effect. Dr. Landon B. Edwards, of Richmond, was re-elected Recording Secretary and Treasurer. Dr. Christopher Tompkins, because of the pressure of other duties upon him during the current year, declined re-election as Corresponding Secretary, and Dr. M. M. Walker, of Richmond, was elected to this office. Dr. M. M. Walker was also elected to deliver at the next session the Address to the Public and Profession.

Warrenton, Fauquier Co., Va., was selected as the place for the next annual session—the exact time to be hereafter definitely arranged by the Executive Committee, after consultation with the Faculty of that place. In selecting Warrenton as the place for the next meeting, the Society was moved by a desire to go in the midst of some of its warmest friends to aid them in their noble efforts to extend the usefulness of the organization. Already, we are glad to hear, some of those residing in that section of the State, who had begun to despair of ever having an opportunity to attend a session of the Society, are becoming enthusiastic, and we will be greatly disappointed, with the present prospects before us, and our knowledge of the push of the profession of

the State, if the session in Warrenton does not prove to be as profitable as any of the twelve sessions then held. Already activity on the part of the profession in that section is manifest in that applications for membership are being sent in.

A matter of some interest to those who may seek admittance into the Society at the next meeting may be here stated. The Society being now out of debt, a resolution was adopted requiring simply the initiation fee of two dollars to be paid by new members who are for that year exempt from the payment of the usual annual assessment of two dollars—thus heretofore making the total expense of a new member four dollars. Hereafter, it will be only two dollars—the same as other Fellows.

With regard to the form or manner of the publication of the usual annual volume of the Society's *Transactions*, Dr. Hunter McGuire suggested that the cost of the publication was not the only consideration; that if a larger circulation could be secured by a small additional outlay, it should be done. He therefore offered the following resolution, which was adopted by an almost, if not an entirely unanimous vote:

“*Resolved*, That the mode of publication and distribution of the minutes be referred to the Committee on Publication, with instructions to do what they consider for the best interests of the Society.”

During the session, the distinguished physician and surgeon of the South, Dr. Henry F. Campbell, of Augusta, Ga., was elected an Honorary Fellow. The retiring President, Dr. Henry Latham, of Lynchburg, Va., was also elected by acclamation to this honorable relationship to the Society. Dr. Alban S. Payne, lately of Markham, Fauquier Co., Va., but now Professor of Practice in the Southern Medical College, of Atlanta, Ga., and who was the nominee of the Committee on Nominations of Officers last year for President of the Society, but who withdrew his nomination for that office, was also elected an Honorary Fellow of the Society.

The report of the Chairman of the Committee (Dr. Frederick Horner, Jr., of Salem, Fauquier Co., Va.), on a proposed Mutual Aid Association, looking to a pecuniary provision for disabled members of the Society, and for the widows and orphans of members who may hereafter die, was ordered to be published in the *Transactions*, and the subject was laid on the table until the next annual session.

Dr. G. Wm. Semple, of Hampton, read a memorial from the Officers of the United States Marine Hospital Service,

concluding with a Bill to be presented during the next Congress, to "Increase the Efficiency of the Marine Hospital Service." He moved that the Society earnestly request the active support of the Senators and Representatives from Virginia, which was unanimously carried.

The above is but a hastily written outline of some of the more important features of the recent meeting; but does not furnish a sufficiently complete idea of all that was done and said, which will make this session long remembered. Let each one strive during the year to make the future meetings as profitable to the Society.

The appointments of Committies, Reporters on Advances in the several branches of Medical Science, Delegates to Societies, etc., are now being made out by the President-elect, Dr. McGuire, and will be duly announced in the forthcoming volume of *Transactions*.

The Committee on Publications, after due consideration of the subject, have made arrangements by which the *Transactions* of the recent session will appear, as heretofore, as a part of the January number of the *Virginia Medical Monthly*.

Medical Society of the County of New York.—During the annual meeting held October 25th, Dr. Alfred E. M. Purdy was re-elected President. The following resolution, proposed by the Committee on Ethics, was carried:

"That it is contrary to the dignity and interests of the medical profession for any member thereof to affix his name to any certificate, circular, or advertisement of any drug, nostrum, mineral water, wine, or other proprietary articles intended to be used as a medicine or remedy in disease, or to any patented instrument or appliance that is intended for medical or surgical use.

"That the manufacture, advertising, or sale by any member of this Society of any of the articles above enumerated is also contrary to the dignity and interest of the medical profession."

We have no sympathy with such extreme views. The idea that a doctor cannot be interested in a vineyard, or in the manufacture or sale of wines; that owning a mineral spring, such as the White Sulphur of West Virginia, or the Buffalo Lithia of Virginia, etc.—he yet cannot sell the products of his soil! As well let an Ethical Committee pass a law prohibiting a doctor from being interested as a farmer, in the sale of wheat or corn or cotton or anything else that is useful and has a mercantile value. It may be said that we

go beyond the true intent of the resolution of the Ethical Committee. We trust we have; but certainly such deductions are legitimate inferences from the wording of the law. What then is the remedy? Change the law so as to let it be applied only to the cases that it is intended to cover.

The "Hammond Prize."—The American Neurological Association offers a prize of five hundred dollars, to be known as the "William A. Hammond Prize," and to be awarded at the meeting in June, 1882, to the author of the best essay on the Functions of the Thalamus Opticus in man.

The conditions under which this prize is to be awarded are as follows:

1. The prize is open to competitors of all nationalities.
2. The essays are to be based upon original observations and experiments on man and the lower animals.
3. The competing essays must be written in the English, French or German language; if in the last, the manuscript is to be in the Italian handwriting.
4. Essays are to be sent (postage prepaid) to the Secretary of the Prize Committee, on or before February 1st, 1882; each essay to be marked by a distinctive device or motto, and accompanied by a sealed envelope bearing the same device or motto, and containing the author's visiting card.
5. The successful essay will be the property of the association, which will assume the care of its publication.
6. Any intimation tending to reveal the authorship of any of the essays submitted, whether directly or indirectly conveyed to the committee or to any member thereof, shall exclude the essay from competition.
7. The award of the prize will be announced by the undersigned committee; and will be publicly declared by the President of the Association at the meeting in June, 1882.
8. The amount of the prize will be given to the successful competitor in gold coin of the United States, or if he prefer it, in the shape of a gold medal bearing a suitable device and inscription.

(Signed) F. T. Miles, M. D., Baltimore; J. S. Jewell, M. D., Chicago; E. C. Seguin, M. D., New York.

Beware of Chloroforming Women without an Attendant.—At Oakland, Cal., during July, 1880, a bank teller, named E. F. Schröder, killed Dr. Albert Lefevre, a prominent dentist of that place. It appears that Mrs. Schröder went to the train on the day of shooting to meet her husband. Mrs.

Schröder told him that on the Saturday previous, while under the influence of chloroform in Dr. Lefevre's office, the dentist made a felonious assault upon her. Schröder at once proceeded to Dr. Lefevre's office, and committed the tragedy. It is believed that Mrs. Schröder's charge against the dentist is purely illusory. Such hallucinations are not uncommon after chloroform administrations. Some remarkable cases exist where hallucinations of this nature have taken the form of absolute conviction in the minds of persons laboring under them, although there exists abundant evidence to prove that this conviction was utterly unfounded. The coroner's jury rendered a verdict charging Schröder with murder. We know of an instance in which the presence of a third party saved a like imputation against the character of an innocent practitioner. The lady, herself beyond reproach, still had such an illusion after recovering from the administration of chloroform, which illusion was only dispelled by the evidence of her lady associate and a servant who were present during the administration of the chloroform.

The Delay in the issue of this number has been almost unavoidable. In the first place, the Editor was necessarily absent from the city for several days during October, in attendance upon the session of the Medical Society of Virginia; then came the State Agricultural Fair—always a week devoted to entertaining "country cousins;" then came all the excitement on the part of the printers incident to the Presidential election, etc.

The American Public Health Association will convene its eighth annual session in the city of New Orleans, La., on Tuesday, December 7th, 1880. Every indication is favorable to a profitable meeting. Already many papers on important subjects have been promised. Gentlemen who propose to present papers at this meeting are requested to notify the (Dr. John S. Billings, Surg. U. S. Army, Washington, D. C.) or the Secretary (Dr. Edward H. Janes, of New York city) of the titles of their papers, in order that they may be assigned a proper place in the programme.

The Rocky Mountain Medical Review is the title of a new, handsomely printed and well edited monthly journal of scientific medicine and general science which was begun with the September number, 1880. It is published at Colorado Springs, Colorado, at the annual subscription price of \$5.

Dr. A. Wellington Adams is Editor. The Associate Editors are Drs. W. H. Williams and F. J. Bancroft, both of Denver; Jacob Reed and B. P. Anderson, of Colorado Springs; and Dr. James A. Hart is Assistant Editor. The enterprise has our best wishes for success—for its merits entitle it to it.

Beneficiary Scholarships in the Baltimore College of Dental Surgery—Last year the Faculty of this College adopted the beneficiary system, requiring but half the tuition fee of deserving young men. "Four applications for such a scholarship have been received from young men in Virginia, and when they were referred to the President of the Virginia State Dental Association, the answer returned was that this Association had determined to recommend no applicants for the beneficiary system. Why the Virginia Association should adopt such action to the detriment of worthy young men, is beyond our comprehension, especially when all other State Dental Societies approve of the beneficiary system, and have shown a willingness to assist in promoting its object." *Amer. Journ. Dent. Science*, October, 1880.

Obituary Record.

Dr. Edouard Seguin, celebrated as a specialist in the treatment of idiocy and allied nervous diseases, died on Thursday, October 28th, at his residence in New York, aged sixty-nine years. He was a native of France, born January 20th, 1812, and received his medical education in Paris—his teachers being Itard and Esquirol. In 1837 he undertook the treatment of an idiot boy, and in about a year after established the first school for idiots, which was the parent establishment of about seventy-five similar institutions now existing in civilized countries. He came to this country after the revolution of 1848, settling first in Ohio. After a visit to his native country, he settled in New York, and completed his studies as an M. D. in the University College in 1861. He wrote a number of books and papers on his specialty, and also on Medical Thermometry, which are regarded as standards. At the time of his death, Dr. Seguin was President of the American Association of Medical Officers, having charge of schools for the education of idiots. He has been especially prominent, of late years, in the introduction of a system of international uniformity in medical and sanitary statistics.—*Med. and Surg. Reporter*, Nov. 6, 1880.

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Original Communications.

ART. I.—**A Clinical Lecture on Diabetes Mellitus.** By AUSTIN FLINT, M. D., Professor of the Principles and Practice of Medicine and Clinical Medicine in Bellevue Hospital Medical College, New York.

Gentlemen,—I will ask your attention to-day to the case before you. It is an example of a disease that I was unable to present last winter, there not having been an example of it in the hospital. The disease is *diabetes mellitus*, or glycosuria (sugar in the urine), or glycohæmia (sugar in the blood), as it is differently known. Cases of this disease are rather rare, but I have been particularly interested in it for the last two or three years, from the fact that I have seen quite a considerable number of cases. I suppose I do not exaggerate when I say that within the past two or three years I have seen, perhaps, fifteen or twenty cases. I have several cases under observation at the present time, and the result of treatment has been to me rather unexpectedly satisfactory in most of these cases.

I will read the history of this case, making some comments as we go on, and while I am doing that the Doctor will be kind enough to examine the urine.

The specific gravity of the urine, on admission, was high,

1.027. I call your attention to the appearance of the urine, there being a deficiency of the coloring matter. In testing it, the Doctor will use what is known as Fehling's test, which is very reliable. If we have what is known as Fehling's solution prepared, the test is very easily resorted to.

There are various other tests which I do not deem it important to consider in this connection. Before chemical manipulations were as much employed as now, we had to rely upon tasting the urine. Yet, in my time I have known of instances recently where that test was resorted to by physicians.

The specific gravity of the urine and the quantity give us a rough method of determining whether the sugar is small in quantity or abundant. It answers for ordinary practical purposes; though, by means of certain tables, it is not a difficult task to determine exactly how much sugar there is in a given quantity of urine. As this urine reaches the boiling point, observe the change which occurs. It shows unmistakably the presence of sugar.

This patient is 35 years of age, married, a native of the United States, and he was admitted into the hospital on May 5th. His family history presents nothing of importance. In early life, the patient's occupations were of a laborious nature, and led to frequent exposures and hardships; but his later years have been spent in leisure. He has always drunk wine in moderation, but never adopted the use of spirits until five or six months ago. Since then he has used them to excess, and often upon an empty stomach. He had an initial lesion of syphilis twenty years ago, which was properly treated. He has indulged in excessive venery. He has not had malarial fever, gout, nor rheumatism. He enjoyed perfect health until about six months ago, when he became very dissipated, spending almost every night in drinking and debauchery for a number of months. Being absorbed in gaming, he habitually retained his urine longer than natural. He suffered from gastritis and frequent vomiting. For four or five months, he hardly took a substantial nourishing meal. Three months ago he began to feel debilitated. He was habitually constipated, having no movement of the bowels for eight or ten days at a time. One day, having induced free catharsis with a saline purgative, he noticed that his urine suddenly became abnormally abundant. He believes he passed several gallons daily for some time."

Here is a feature in the history which claims attention. He noticed all at once that his urine was very abundant, and he is inclined to believe that the disease was brought on by use of the saline cathartic. Of course there is no ground for that, and it is by no means probable that so much sugar appeared in his urine all at once. It had undoubtedly been there for some time, but for some reasons the urine may have increased in quantity rather suddenly; that fact led him to direct his attention to it. He suffered very urgent thirst, as patients do in proportion to the amount of urine which is eliminated. A month later, his appetite became voracious, as is frequently the case in diabetic patients. He was obstinately constipated—that also being the rule. He suffered from progressive exhaustion, which is the rule, or which attends certain cases as the disease goes on. There was extinction of venereal desire, which is a feature of some cases and not of others. Then there were a capricious appetite, a slight febrile movement, mental enfeeblement and progressive emaciation; still he attended to his daily duties, passing only a part of the day in bed up to the time of his admission. He now complains of asthenia, exhaustion; but he has no pain, no epistaxis, no oedema, no emesis. His appetite is variable; the urine is pale, acid in reaction, of a specific gravity of 1.036, and contains no albumen and no casts. The following is a record of the quantity of urine passed daily: On May 6th, he passed 84 fluid ounces; on the 7th, 107; on the 8th, 135; on the 9th, 130; on the 10th, 170; on the 11th, 140. The urine contains about ten or twelve grains of sugar to the ounce. The quantity of urine has been increasing since he has been in the hospital.

There are several points which I wish to present in connection with this case. He is a young subject, as you see; and as regards the prognosis, I would prefer to have him older and stouter, for clinical observation shows that this disease is more likely to be controlled in proportion as it occurs in advancing years, and in proportion to the weight of the patient, so that these two circumstances are not as favorable as we could wish.

It is customary in nosology to consider this disease among the diseases of the urinary system. It is obvious enough, however, that it does not belong there. The presence of sugar in the urine is simply an effect of the presence of sugar in the blood. But the disease is classed among diseases of

the urinary system for convenience, because our knowledge of its essential pathology is not sufficient for us to place it elsewhere, unless we consider it among diseases of the blood. Some think that the examinations *post mortem* have been sufficient to show that there are certain changes which substantiate the ground of its being a disease of the cerebral centres. The pathology of this disease is at present a matter for continued investigation. It is a fair inference, from the success of dietetic treatment, that the pathology involves some defect or vice in the process of assimilation—that is to say, we have sugar in the urine, because the sugar which is taken with the food, and the starchy substances which enter into food, do not undergo their normal changes in the process of assimilation.

Now, as regards the diagnosis, the disease is very apt to be overlooked—not from any difficulty in the diagnosis, but because attention is not directed to an examination of the urine for sugar. If we have a patient passing a large quantity of urine, complaining of thirst, of course we examine the urine for sugar; but we do not have this greatly increased quantity of urine in all cases; and instances have occurred repeatedly under my observation in which the disease has been overlooked for a long time, because, although the urine may have been somewhat increased in quantity, the patient attached no importance to it, and the attention of the physician was not directed to it, and it did not occur to him to direct his own attention to it. We should be on the lookout, then; in cases where there is any room to suspect this disease, we should examine the urine for the presence of sugar.

There is a characteristic odor of the breath, which it did not occur to me to observe before the patient went out—a kind of mawkish sweetness of the breath, which I can compare to that of chloroform perhaps. It is so distinct that it can hardly be mistaken when it is present.

Some time ago I saw a patient with a pulmonary affection, and in examining the chest I caught the breath. I said to the physician whom I met in the case that the patient had diabetes, and he was greatly surprised. It had not been suspected, but on inquiry I found that some months before the

patient had been passing large quantities of urine, but it was supposed to be due to nervous exhaustion, and the urine was not examined; of late, however, there had been no increase in the quantity of urine, and so it had been tested only with reference to Bright's disease—for the presence of albumen, and for the specific gravity. The specific gravity was not above that of health, and so one of the physicians said, "How is it possible for the patient to have diabetes, when the quantity of urine is not increased and the specific gravity is not heightened?" Well, such a thing is very possible. On examining the urine, sugar was found. This is a very important fact in connection with the prognosis. The pulmonary affection destroyed that patient, as any serious affection is apt to do when it occurs in the course of this disease.

I will mention a case which will illustrate the importance of examining the urine, even though we have scarcely any ground for suspicion. In women, an eczematous eruption about the urethral orifice is very apt to be the result of the presence of sugar; and, if this be complained of, it should lead to an examination of the urine. But a gentleman came to me some two months ago, apparently in perfect health—a man weighing about two hundred and fifty pounds, and said, "I have come to see you, perhaps upon a very trivial matter, but still it has occasioned me some annoyance." It was simply this, that he had a curious sensation in the meatus of the penis, which he described as an itching sensation—not at all connected with sexual excitement; not at all connected with an erection of the organ, but being sufficient to cause considerable annoyance. I thought at first that it was a trivial matter, and told him so, and was very near making up some prescription, more to satisfy him than specially to relieve him, when it occurred to me that I had better examine his urine. I did so, and found it loaded with sugar. In that case the patient was not aware that he was passing any great quantity of urine; nor was he aware of any increase of thirst. In fact, he had nothing except that slight itching sensation to attract attention to the existence of the disease. That proved to be a case of diabetes, and I speak of it now because this is an important fact of tempo-

rary duration. On placing this patient on an anti-diabetic diet, in the course of a month—yes, within less time than that, within two or three weeks—the sugar entirely disappeared from the urine, and since then he has been free from the disease, and has returned to his ordinary habits of life. We meet with cases of that kind.

So much, then, for the diagnosis, and I would like to impress that upon you, for I know that some medical men have lost the confidence of their patients by not having discovered this disease early. I have an instance in my mind now, in a case which is under observation, where the patient feels great dissatisfaction toward a medical adviser, feeling that she had this disease for months before any examination of the urine was made. So that we should examine the urine for sugar whenever there is the slightest ground for suspicion. It is a good plan in all cases, when examining the urine, to test it for sugar; it costs but a few moments of time, it is easily done, and you should not fail to do it, especially if you find the specific gravity high.

Well, now, with regard to the *prognosis* and *treatment*. Diabetes is generally regarded by medical men as a disease which offers very little in the way of favorable prognosis and treatment, and it seems to be confessed that in a very large proportion of cases a permanent, radical cure is not effected. But this may be done in a pretty large number of cases; the disease may be kept in abeyance without sufficient derangement of the habits of life to impair the general health, or to be considered by the patient a very great hardship. And this is especially the conclusion which I have reached after considerable opportunities of observation within the last few years. It has so happened that quite a large number of medical men in this neighborhood, within my knowledge, most of whom have seen me, have suffered in this way. I could mention six or eight medical men who, within the last two years, have suffered from this malady; and several of these now consider themselves in perfect health, but, not considering it a burden to continue the dietetic treatment which resulted in their present favorable condition, they still follow it.

The treatment is emphatically dietetic. There have been

a great many remedies proposed from time to time, recommended as having control over this disease. Now, I am not prepared to say that there are no remedies which do exercise more or less control over it. But we should commit a grave error, and act very much at the expense of the prospects of our patients, if we gave any remedy which rendered them less careful in attending to the dietetic treatment. In other words, the dietetic treatment is to hold the first place. This treatment consists in withholding from the food almost entirely (for entirely we cannot) sugar in any form, and all the starchy constituents of diet capable of being transformed into sugar. That is the principle. Well, if we merely state that to patients, and tell them they must not eat sugar, they must not eat starch, they will not be likely to carry it out. In the first place, it is not likely they will know enough of the subject to be able to carry it out, even if they were so disposed; and, unless we go further, and are very careful as regards details, we shall find that the elimination of these constituents of the food will not be done; they will not tolerate it. If we are to succeed, we should give appropriate attention to the preparation of the food, the number of articles which the patient should be allowed to take, and the variation of the food from day to day, to make this anti-diabetic diet satisfactory to the patients—that is, satisfy their appetites and the purposes of nutrition. This can be done, and, if it is done, the patient carries out the treatment, because it is no hardship to carry it out; and the treatment is to be carried out not for a few days, or a few weeks, or a few months, but for an indefinite period—for years, and perhaps during the whole of life.

How is this second object to be effected? We must place before the patient a list of all the articles of food which are to be avoided, specifying them—not contenting ourselves with the statement in general terms, but specifying, on the one hand, all the articles of food which he must not take; and, on the other hand, all the articles of food, animal and vegetable, and so on, which he may be allowed to take. He should have such a list before him, and such articles should be selected from the allowable ones as to make a variety from

day to day, and so prepared by the artifices of cookery as to render them satisfactory. It can be done, but it requires patience, and it requires care on the part of the patient or somebody else, and it requires some means. A very poor man, who has no one to look after these matters for him, and who has not sufficient means to obtain all the articles of food which are desirable, will find it very difficult to conquer this disease; and in certain public institutions—this hospital, for instance—it is very difficult to carry out the proper dietetic treatment. It requires so many things and so much attention to details, that the dietetic treatment is very unsatisfactory in public hospitals.

The article of food which will cause most trouble is bread, and diabetics realize the force of the statement that bread is the staff of life. Frequently they say at first that they care little for bread, and can get along without it with no trouble, but they do not find it so after a while. They find that there is a craving for bread, and they feel that they cannot do without it. So there have been various substitutes for it. There is what is called the diabetic flour, which is bran very finely ground so as to divest it of all rough particles; but it has no nutritive quality whatever. It is really no better than sawdust, so far as nutritive value is concerned, and the patient adheres to it only a short time. For the past two years the patients that I have seen have been in the habit of using a bread which, so far, seems to be very satisfactory, but it is not entirely divested of starch. It is what is called gluten bread, prepared by the Health Food Company, corner of Tenth street and Fourth avenue, of this city. Analysis shows that it is not entirely divested of starch; but it is so prepared that it is not deprived of the agreeable qualities of ordinary bread. Last winter I brought a loaf of that bread before the class and distributed it. I like it to eat myself, finding it by no means disagreeable; and patients take this bread and it meets their wants—thus removing a great obstacle to the successful dietetic treatment of this disease.

I do not deem it necessary to go over the entire list of these dietetic articles. You will find them by reference to different works. But the thing to do is to go into minute

details with the patients; explain to them fully just what must be done.

Well, now, after they enter upon this course of treatment, in a very considerable proportion of cases the sugar diminishes at once, and sometimes it speedily disappears. Of course, we should examine the urine from time to time, to determine its condition as regards the presence of sugar and the amount of sugar. This treatment does not cause a disappearance of the sugar in all cases. I leave a patient under observation now, whom I saw for the first time about three weeks ago—a young, thin, intelligent man, who, I have reason to believe, adopted the anti-diabetic treatment, and has carried it out fully. I prescribed no medicine at first, and that has been my custom, in order to see what the dietetic treatment will do of itself. In this case, it has accomplished very little so far. And this case, I am led to fear, therefore, will be one in which we cannot expect much success from treatment of any kind. If the dietetic treatment does not succeed, we have no other resources—that is, no medicinal remedy yet known will succeed. It may have a certain influence over the disease, but it will not effect a cure. Then, I could mention other cases. A gentleman whom I have seen now for two years, who until lately has taken scarcely any remedies, but has carried out the dietetic treatment very faithfully, presents urine which gives no evidence of sugar whatever. He retains his strength, mentally and physically; he is a man of great activity, being engaged in business involving large responsibility, able to go on with it, and finding the dietetic treatment perfectly satisfactory—finding it no hardship.

Now, as to medicines, as I have said, a great number have been proposed from time to time, have been tried a short time, and then have passed out of use, others taking their place. This patient is not under my own care here. He is under treatment with the sulphide of calcium, a fifth of a grain three times a day, together with the dietetic treatment, so far as it can be carried out. With regard to this sulphide of calcium, one patient, a medical man in this vicinity, who suffered from this disease, consulted me about three years

ago, at which time he found that he had diabetes, adopted the dietetic treatment, relinquished his duties in town, which were exceedingly laborious, and went into the country; and his urine after a time showed no evidence of sugar. When I saw him last, which was a few months ago, I had never seen him look better, and he said to me that he had never felt better in his life. And, by the way, as an evidence that this disease may have existed for some time before the patient's attention has been directed to any disease, this has been said to me over and over again by patients, even when the urine still contained sugar; they were not aware that they had any disease, as they felt much better than they had for months, perhaps for years before. They would not be aware that they had any disease, were it not for a chemical examination of the urine. If they could put that out of view, they would not have the consciousness of having any disease at all. This gentleman, who was a very able practitioner, was led to use the remedy that I have just mentioned from finding it recommended, as he told me, in some medical journal. He has the impression that the sulphide of calcium had considerable to do with his apparent cure. Well, I am free to say that, when I talked with him about it, my own belief was that he was apparently cured by the dietetic treatment, and by a change of habits of life, the avoidance perhaps of some excesses. In our present patient, for instance, we might perhaps say with propriety that probably his dissipated habits brought on the disease; but we find it occurring in persons whose habits of life are good as often, and, perhaps, oftener than in those who are dissipated. At all events, I was not prepared to commit my own mind to the enthusiastic idea which he entertained of the value of that remedy.

To one patient who came to see me I stated these facts with regard to that remedy, and I said, "If you feel no objection, I will prescribe it for you." This was a case in which the dietetic treatment had been extremely successful; and most of the time there was but very little if any sugar in the urine. I told the patient that the remedy in question would do no harm; that I thought I could say that. He said, "well, let us try it." I put him upon the remedy, be-

ginning with small doses, and increasing them. I began in his case with an eighth of a grain, but I think we might begin with a quarter of a grain; in other cases I have begun with a quarter of a grain three times a day, after a fortnight doubling it, going up to two grains, and continuing it indefinitely. Well, this patient went on in that way, and he is very much impressed with the idea that it has been of use to him. Now, we must make some degree of allowance with regard to the opinion of the patient as to the effect of the remedy. I do not mean to say that the remedy has not been of value, but I do not feel as certain as the patient does with respect to its value. I am also prescribing the same remedy in three or four other cases, but the period during which it has been used is too short, I think, to enable one to form a correct judgment with regard to it. I shall certainly continue the use of the remedy, for it can do no harm; and moreover, it is a gratifying thing to the patient to be taking a remedy which he supposes may be of use. The moral effect of remedies, as people's views are now, is by no means inconsiderable; it is a factor which we cannot altogether ignore in the treatment of disease.

This disease, I believe, may be kept in abeyance indefinitely, by appropriate dietetic treatment, and yet I am extremely doubtful whether a patient can ever properly consider that there is a permanent recovery. The disease in itself does not tend to destroy life, but it shortens life in this way: it impairs the ability to resist other diseases. Let a diabetic patient have any disease of any importance, one which (the body being in good condition in other respects) would be well tolerated and recuperated from; it is likely to destroy the patient.

There is a liability to the occurrence of something to which attention has been directed quite lately, and this is a very interesting part of the subject, namely, the sudden occurrence of cerebral symptoms, causing sudden death. The fact has been known for a long time that diabetic patients sometimes die suddenly, and in a way not easily explained. Of late it has been supposed that the sugar in the blood forms certain combinations by which a toxic principle is evolved, and that

the action of this toxic principle on the nervous centres produces coma, with great embarrassment of the respiration and speedy death. I am not sufficiently intimate with the details now to go into the changes which are supposed to take place, and indeed I do not think that anybody has been interested enough to investigate them thoroughly; but it is an interesting topic at the present time, and I have had some cases which illustrate it. Last summer a gentleman from one of the Southern States, a merchant, came on here to make purchases of goods. He brought a letter to me from a physician in his town, saying that he had diabetes, and that as he was coming to the city, he had desired him to call and see me, and talk about the case. The merchant sent the letter to me, saying he had taken a severe cold, and wanted me to come down and see him at his hotel. I went, and I found that he seemed to be suffering from a cold, but there were no symptoms that indicated anything important at all. I brought away a specimen of his urine. He thought he should be able to come up and see me the next morning. I said, "if not, I will come down and see you in the afternoon." I found his urine loaded with sugar. He did not come up in the forenoon, and I went down to see him. I found that he was not as well as on the day previous; he had a little fever, which led me to think that he might have had a malarial paroxysm; however, there was not enough disturbance at that time to demand particular advice. He did not feel well; he had loss of appetite; and while I was present, he had nausea and vomiting, and his cold troubled him. He had some soreness of the throat, but, as I say, there was no symptom indicating anything alarming. He felt exceedingly uncomfortable. I came back and asked my son, Dr. Flint, to go down and see him again in the afternoon and make some applications to the throat, more because he was a stranger and felt lonesome, and I thought I saw evidences that he thought something ought to be done. My son went down, and came back in a short time, telling me that the patient was in a very serious condition, and suggested the propriety of my going down, which I did at once, but the patient died before I reached the house. It seems that shortly after my

visit he had a convulsion and went into a condition of coma. A physician in the house was called, and he thought there was œdema of the lungs, and applied dry heat to the chest. When Dr. Flint reached the patient, he was somewhat improved, but only temporarily, and he died in this comatose condition, with considerable embarrassment of the respiration. We had no autopsy in that case, but it is difficult to form an idea as to the cause of death, except as some unknown toxical change.

Another instance I can cite, which is nearly as strong as that, where I was called to see a woman who had had diabetes for six or eight years. She was semi-comatose, and there was considerable embarrassment of the respiration. There was evidence of bronchitis, and nothing more; but the physician said, "This woman presents symptoms of a serious nature, and apparently she is going to die, and I do not know what she is dying of." And she did die that night.

Another case. The first of January last I was asked to go over to Jersey City to see a patient. I could not make my visit until evening, but made an appointment to go over then, and did so. When I reached the physician's house, he said to me, "My patient is dead. There was no time to communicate with you, so I did not send a message." The facts were these in this case: The physician who was called had seen the patient on the street, knew him to be feeble (he was a man somewhat advanced in years), but he was not acquainted with him; never knew him until he saw him two days before his death. The physician was called to see him, and he was told by the patient that he had not been well for some time, but there was no definite ailment. He was passing water in considerable quantity, and the Doctor took away a specimen, and found it loaded with sugar. He ascertained then that the patient had diabetes, which had existed he did not know how long. However, there were no symptoms occasioning any idea of immediate danger. The patient asked him whether he thought he had a serious disease. He said, "Yes, I must tell you that you have a disease of a serious character." He said, "Doctor, I asked that question because there are very important matters for me to arrange if I am

in any danger." "Well," he said, "I hope you are not in any immediate danger; at the same time you have an important disease, and it is desirable for you to make any arrangement of your affairs that you may deem proper." So this man, who happened to be a man of wealth, sent for his lawyer to prepare a will which he had not before executed. The next morning the Doctor went to see the patient, and the only thing that attracted his attention was that he looked rather dull, indisposed to exertion. By the way, he had examined the urine for albumen and evidences of renal disease, but with negative results. There was no disease of the kidneys, which sometimes occurs in connection with diabetes, under which circumstances the patient may die from uræmia. That is the termination of a certain proportion of cases. The Doctor's apprehension was not excited, but he said, "This is a case of importance, and I would like to have a consultation," to which consent was given. Under those circumstances I was sent for. The patient, as I said, was disinclined to exertion that morning, and would not execute his will, "because," he said, "I shall feel better to-morrow. I do not feel like it to-day." But before my consultation in the evening he fell into coma and died.

Here, then, are several cases, which within the last year have fallen under my own observation, going to illustrate this toxical incident occurring in certain cases of diabetes, which requires further investigation, and forms a very interesting part of the pathological study of this disease.

ART. II.—A Few Suggestions on the Medical and Surgical Treatment of the Most Common Forms of Uterine Diseases. By JOSEPH H. WARREN, M. D., Author of Work on Hernia, ect., Boston, Mass.

It is well known that one of the most prominent symptoms accompanying diseases of females is *constipation*. This, then, is one of the most important complications to be removed; for where the bowels are confined, the secretions are blocked up, leading to great torpidity of the bowels and digestive

functions and secretions; as, for example, those of the liver, kidneys, etc.

As little is to be gained, then, by local applications or by tonics unless the secretions are first properly established, for the last fifteen or sixteen years I have adopted the following formula, which in my hands has acted well. As, moreover, other practitioners have used it in their practice and spoken so highly of it, I have thought it not unworthy to call the attention of the readers of the *Medical Monthly* to it. Using it so constantly in my daily practice, my apothecary, Mr. C. I. Eaton, of Boston, thought it well, for the convenience, both of pharmacist and prescriber, to have the pills sugar-coated, thus preserving their qualities and ensuring uniformity of action. He accordingly sent the mass to Bullock & Crenshaw, of Philadelphia, who manufactured them into sugar-coated pills of great beauty and perfection. I believe the same firm still continue to manufacture them in large numbers. For the want of a better name, I designate them the "Tonic and Laxative Pill." Generally one, or at most two, of these pills are sufficient, when taken at night, to obtain a movement of the bowels the following morning.

From their composition they act, not only upon the upper portion of the alimentary canal, but more particularly upon the lower portions, which, in females, are more particularly constipated—especially when uterine diseases are present as a complication.

The nux vomica in these pills excites peristaltic motion, and, at the same time, is one of the best tonics in the *Materia Medica*. The podophyllum stimulates the secretions of the stomach and liver. As there is generally more or less nervousness in the patients under consideration, the hyoscyamus will secure them a good night's rest. The pepsin, quinine and iron are too well known in their beneficial effects upon the stomach of the dyspeptic and low-toned patients to need further mention; while the jalap and colocynth are also well known in their hydragogue action upon the lower bowels.

The following is the formula for the Laxative and Tonic Pills above spoken of:

		Grammes.
Ry. Ext. Colocynth Comp.....	grs. xxv, or.....	1 50
“ Jalapin.....	“ xxv, or.....	1 50
“ Podophylli.....	“ iv, or.....	24
“ Nucis vomicæ.....	“ viij, or.....	48
“ Belladonnæ.....	“ iij, or.....	18
“ Hyoseyami.....	“ x, or.....	60
Aloes Socotrinæ.....	“ xx, or.....	1 20
Ferri et quiniæ cit.....	“ xx, or.....	1 20
Pepsin porci (Morsen's).....	“ xx, or.....	1 20

M. Make 25 pills. Sig.: One or two at night.

For one or two nights, this pill may often gripe and cause a little pain; but after this, no further uneasiness or pain follows, nor in their continued use for months or years is there any ill effect experienced. It will be found a convenient laxative in general practice.

In addition to this, I might add a few formulæ that I have long used in the treatment of the Uterine Diseases, that are the more frequently met with in our daily professional labors. In so doing I shall not endeavor to make a fine classification of these diseases, whether they be chronic metritis or endometritis; but will be content, in this casual glance at the diseases and their medications, whether internal or locally to the diseased organ, to mention a few of the common diseases and applications. For instance, *an enlargement of the uterus and softening of the surrounding tissues, with a highly dilatable external and internal os, attended with or without ulceration, frequently discharging a leucoranguinous secretion, loaded with semi-purulent mucus, often offensive, and creamy in consistency.* To this large variety of cases, I find the following formula gives me great satisfaction in its results; in most cases, a decided relief from the very beginning of its application:

		Grammes.
Ry. Ether sulph.,	or.....	30
Tinc. Iodini.....	aa 5j,	or..... 30
Glycerinæ.....	5vj.	or..... 24
Acidi carbolici glacialis.....	5iv,	or..... 16
Iodini.....	5iss,	or..... 6
Morphiæ sulph.....	gr. ij,	or..... 12

Mix.

This mixture I apply in the following manner: Taking a bit of absorbent cotton and passing it through a vermicular

pointed probe, I then dip this probe and cotton into the mixture and pass it up to the fundus of the uterus. By the revolving motion of the point of the probe, the medication is thoroughly applied to the whole interior of the uterus. In this manner, we accomplish what could not very well be done with the ordinary soft camel-hair brush; and should the internal os be not always easily dilatable, the peculiar form of this instrument, together with the cotton, acts as a dilator to overcome the slight contraction. The organ, while undergoing this operation, should be seized with a slender tenaculum at the anterior lip, and held while the medication is applied.



It will be surprising what a vast quantity of cases, as we usually see them, will yield to this treatment when the application is made once every six or eight days. While undergoing these applications great benefit will be derived from the following tonic:

		Grammes.
Ry. Tinct. ferri chlorid.....	5iij, or.....	12
Acidi phosphor. diluti.....	5vj, or.....	24
Quiniæ bisulph.....	5iss, or.....	6
Malt.....	5x, or.....	300

M. Sig.: One teaspoonful three times a day, after meals.

In addition to this, an irrigation of the parts should be resorted to every night with hot water, or hot water containing 5iv of sodic chloride to every gallon of water. This salt and water should be applied with a fountain syringe, or with an extemporaneous syringe made of a bucket, in the bottom of which is an opening for the attachment of a rubber tube, on the distal end of which is to be secured the beak of a female syringe. The centre hole of this beak must always be plugged in such cases, as otherwise uterine colic may re-

sult from a stream of water passing direct into the uterus. Or, the apparatus of Dr. C. H. Munson, of New York, will be found convenient for irrigation; it is simple and effective.

Whilst it is true that this will cover a large number of uterine cases, yet, when we advance to graver forms of diseases, as where we have a *patulous os, external and internal, very friable and more or less degenerated in the submucous membrane*, which degeneration has rapidly extended from the mucous membrane to the parenchyma of the body of the uterus, owing to the fact that there is no connective tissue between this submucous membrane and the parenchyma, we in such cases find a severer and more extensive application necessary. As proven by long experience, it is difficult to draw the line of demarkation where cervical inflammation begins and ends in all cases; hence, at the expense somewhat of seemingly empirical practice, we apply our medication to the whole interior of the uterus, in order to be sure of reaching the full extent of all the diseased parts of this organ. I add this explanation more particularly for the benefit of the younger members of the profession. That of Dr. J. P. Thomas, of Kentucky, will be found to come into play, and in a large majority of cases to meet our best expectations. It is as follows:

	Grammes.
R \bar{y} . Iodini,	15
Acidi carbolici cryst..... \bar{aa} 5ss, or.....	15
Chlorali	3j, or.....30

The acid should be added to the iodine and chloral while it is hot. This medication can be applied as I have already described.

We next come to a very interesting class of cases, where there is much pain in the lumbar region and general lassitude and malaise, accompanied with nervousness, restless nights, poor appetite, and great lack of muscular energy. Coupled with this will be found more or less rheumatic muscular pains in various parts of the system, urine loaded with lithic and uric acid, and not unfrequently further complicated with the phosphates. Such cases, if inquired into as to their history, were married in early life and have borne

children, had one miscarriage or perhaps more in succession after birth of first child. If we now examine the uterus it may be subinvolved, much enlarged, with elongated cervix, of a deep red mahogany color, and external os covered with a gluey, yellowish secretion. Menstruation has always been variable, sometimes profuse—even to hemorrhages; at other times, scanty or altogether absent. From the history, we gain no particular evidence that our patient has ever suffered from any syphilitic contamination, but if we question still further we shall get much light upon the doubtful origin of this disease. If we ask if she has ever had any pain of an acute nature, we shall ascertain that she has had pains occurring more particularly at night, which are of a severe neuralgic character, located about either parietal bone, often extending to the base of the occipital and often to the fifth cervical vertebra. She will also tell us that she has had much pain in the liver, and perhaps an acute hepatitis. Generally she will also say that she had an eruption in the hair or some scaly disease of the scalp, accompanied with some open sores from the size of a buckshot to that of a small marble. These sores may discharge a semi-gluey fluid forming a scab over the seat of suppuration. She may also inform us that she had severe pains along the anterior portion of the tibia.

Just such cases as these are very frequently occurring, and are often very puzzling to diagnose; but the sooner we settle down to a specific treatment, whether we have made an exact diagnosis from her history or not, the better are our chances of relief to our patient. Assuming that we have such a case, our treatment would be of a mixed character. For internal medicine, the following formula will be found most efficient:

			Grammes.
R. Quinix bisulph.....	5j,	or.....	4
Hydrag. chlor. corrosiv.....	gr. j,	or.....	06
Potassii iodidi.....	5iv,	or.....	16
Malt.....	5viij,	or.....	240
(Or, Syrupi sarsæ.)			

M. Sig.: Teaspoonful after meals.

For application to the diseased uterus, I usually apply the fuming nitric acid, in the following formula:

R. Acidi nitrici (fuming).....	3ss,	or.....	16	Grammes.
Acidi hydrarg. nitratis.....	5j,	or.....	4	

M. Sig.: Apply on a bit of cotton (as I have above described in the former applications) once in ten days.

The irrigation of salt and water may be the same as in our former cases. This treatment should be continued for from three to six months, alternating the internal medicine by giving the nitro-muriatic acid mixture, accompanied with a grain of quinine and iron three times a day. This, with plenty of exercise in the open air, will please us and astonish our patient by perfect restoration to health, after months and perhaps years of illness.

The next puzzling cases that present themselves to the practitioner, are often as hard to diagnose as to origin and history, as those just described. I refer to that large class of females with thin delicate skin, bright glistening eye, and a countenance stamped with pain and suffering. They will be found very nervous and as a rule highly intelligent. Every action is quick; they are ever on the alert, and as sensitive as the aspen leaf to all their surroundings. Their voice has become sharp, and all their former pleasant disposition has changed to a morose and peevish habit to all her friends. Feeling that their ills and complaints are not properly considered by any members of their family, they will tell of the constant pain in their back, side and head, all very much intensified at their monthly periods. If we examine them, we find no portion of the spine which does not, from its sensitiveness, writhe under our slightest touches. Great pain, amounting almost to dysmenorrhœa, ushers in every appearance of menstruation. She complains of a bearing-down pain in the front part of the pelvis, extending up as far as the crest of the ilium on one or both sides; bowels extremely sensitive—at these times so much so that even the weight of her clothes is insupportable.

If we examine the uterus, we will find more or less displacement, such as an ante- or retroversion, often accompa-

nied with ante- or retroflexion. The os will be contracted, and have a bright and almost glassy appearance; the color will be much as if we put cardinal red under a piece of thin parchment—in fact, of a lighter pinkish hue, instead of the darker mahogany red of the preceding case. The organ is very sensitive to the slightest touch, but more particularly so if we make our examination immediately before or after menstruation. In addition to these symptoms, we find an increase of temperature and a quickened pulse, micturition hysterical for the greater portion of the time, arising from excessive nervousness. The patient will tell you, in fact, that it seems as if she could fly at such times. In addition to this condition of things, we find she has an appetite deficient or variable; poor digestion and constipation, and more or less palpitation of the heart.

We shall find that this large class of patients, in their girlhood, and previous to their married life, were rosebuds of beauty and health; extremely joyous and happy in all of their deportments to family and others, with precocious intellects, entertaining and pleasing manners. But all of this has been changed by a few months or years of married life. We find such patients more particularly among women American born. We naturally ask ourselves, What has produced this wonderful change? It cannot be their excessive household duties; for many of them, previous to their marriage, were subject to greater hardships than now, and more confinement in the heated air of schools.

The true cause, or a greater part of all these ills, although it pains me to say it, originates from the non-desire of *having children*; or when conception has taken place, from the use of all means, whether medication or exercise, to cause abortion; and when these have failed, the treatment of the illegitimate and vilest villains that curse any country, and who may well be called enemies of the human race. I mean the detestable abortionist, to whom many of our fairest women resort when all other means of miscarriage have failed. While it is painful to contemplate such a state of debased morals among our own native women, it is still a fact, that in my experience of the last twenty years in the treatment of uterine diseases, fully one quarter of the grand total of cases have been the

results of a deliberate interference with the natural course of nature. Many others are the unfortunate victims of constitutional weaknesses, inherited; while far too many owe their sufferings to improper hygienic and physiological surroundings at home, or to ill-ventilated school-rooms, where, in stifled rooms, they are foolishly forced in their studies—as plants in a hot-house—in accordance with the views of some silly thinker, the so-called strong-minded. Meanwhile, the parents of these dear girls are at a loss to find the cause of the difficulty, and are constantly referring to their mothers and grandmothers, who were subject to no such internal ills and nerve fatigue.

But to us as physicians, the fact that disease is present is the claim to treat it in the most satisfactory manner. We will begin by the administration of the laxative and tonic pill (already named) at night, to move the bowels; the iron tonic mixture may be given to those cases which can tolerate the iron and quinine. To improve the digestion, pepsin or ingluvin may be given just before the meals or soon after. When this is necessary, the iron tonic should be deferred an hour or two after each meal. If our patient is extremely nervous we may, in place of the iron mixture, use 15 to 20 grains bromide of potassa or soda, combined with a grain or two of bisulphate of quinine, three or four times a day. The os, if contracted, should be dilated, and the first formula for application to the uterus applied. Should the leucorrhœa still persist, a few applications of the acid mixture will be found very beneficial. After this, we may again use either of the formulæ I have given, alternating them if desirable. The hot douche or irrigation of salt water, either with or without tannic acid (1 drachm to 2 quarts of water), will be found to be of good service; or the same quantity of chlorate of potassa. In addition, we may insert the following suppository at night, to ease the pain in the organ, and at the same time secure good rest:

R_y. Ext. mattaco.....grs. xxx.
 “ hyoseyami.....grs. xv.
 “ belladonna.....grs. iiss.
 Cocoa butter.....ʒj.

Fit. suppositoriæ in numero decem (x).

Sig.: Use one every night by inserting into the vagina at the time of retiring.

The os can be dilated, in most cases, without resorting to the sponge-tent, which I detest from its being the originator of more than one case of septicæmia in the surgical treatment of uterine diseases. This may need a word of explanation.

How can this tent be the source of mischief, in producing so grave a disease as septicæmia? It is well known to the older gynecologists at least, that this result is brought about from the fact that the interstices of the sponge press with such force upon the mucous membrane as to cause suppuration. The sponge cells holding this decomposing fluid, present it to the absorbing surface, to be carried into the circulation, thereby introducing a blood poison extremely difficult for the system to eliminate; so that I have for years resorted, by preference, to rapid dilation with the uterine forceps, the sea-tangled tent, or the more dilatable wood which is brought from South America, and manufactured by surgical-instrument makers in the proper sized tent.

But of late I have found in my revolving uterine dilator an instrument which, working perfectly, dilates with ease and rapidity almost any case: therefore, I do not now resort to any of the above methods, except in exceptional cases. This instrument is used by seizing the anterior lip of the uterus by a tenaculum and firmly holding it while the dilator is pushed through the external and internal os.

A description of this, as well as of the probe and several other instruments, may be found in the October Report of Meeting of the Suffolk District [Mass.] Medical Society.

In addition to the above, the nitrate of silver applied by fusing in a platinum cup, and applied with a platinum probe, will be found of very great advantage in treating some of these cases, with a uterus exceedingly irritable. One or two applications of this generally removes an irritability which may be so excessive that the patient can hardly sit down.

When the parts are dry, red, and highly inflamed, great relief may be obtained by scarifying the cervical canal with the guarder-blade of Cooper's knife.

The next common affection to be here considered, is *menorrhagia*. These cases, as generally presented to us, occur in the greater majority of females from thirty to forty years of age. They may, however, occur at any age. The patient is pale, anæmic, complaining of great languor and fatigue from her frequent menstruation and loss of blood. She will tell you she is in this state once a week, or once in two weeks; flows two or three days quite smartly, and continues to dribble a greater or less quantity of blood from one period to the other, which periods have become so frequent that she is well-nigh prostrated to the bed. With this she complains of backache and dragging pains through the pelvic region, with a sensation as if her hips must be separated at their joints, and this sensation may exist at the knees and ankles. The muscles are soft and sore. She complains of excessive pains in the sides, mostly in the left; of more or less headache, with vertigo; of nausea and great repulsion to all food, particularly animal food. The heart is enfeebled and quickened in action, with palpitation; bowels generally constipated, but micturition frequent. There may be dropsy of bowels, face, and in fact of the entire body. If we examine the uterus, we may find it pale, anæmic, and generally somewhat enlarged, with the internal and external os very dilatable. Other than this, no other signs of disease are discernible, such as endometritis, hyperplasiæ, or other of the common affections of this organ. In such cases the following application will be found very beneficial, if applied once every four or six days:

		Grammes.
R _y . Iodidi potass.....	grs. j,	or..... 06
Tr. iodine.....	ʒj,	or..... 30
Acidi carbolicæ.....	ʒj,	or..... 4
Glycerinæ.....	ʒij,	or..... 8

M. Sig.: Apply on a billet of cotton, as recommended in a preceding case.

This application should never be given at the regular period of menstruation; but after a lapse of four or five days, it may be thoroughly applied to the whole interior of the organ. The hot douche of salt and water will also be found of great advantage in arresting this hemorrhagic tendency.

In addition to this, a drachm or two of iron alum to the quart of water may be applied night and morning. It should be allowed to pass from the tube very slowly, and the patient told to retain as much as possible in the vagina by elevating the hips. Internally, the following mixture may, in the majority of cases, be given with great benefit; and as there is, generally, some constipation, with torpidity of the liver and kidneys, the magnesia will stimulate these organs to a proper performance of their functions:

		Grammes
R _y . Magnesiæ sulphat.....	5ij, or.....	60
Acidi sulphurici dilut.....	5iv, or.....	16
Ferri sulphat.....	5ij, or.....	8
Quiniæ bisulphat.....	5iss., or.....	6
Strychniæ sulphat	gr. j, or.....	06
Malt (improved).....	5vj, or.....	180
Aquæ mint verd.....	5ij, or.....	60

M. Sig.: Two to four teaspoonfuls after each meal.

In addition to this, if there is no constipation, we may give the tincture of muriate of iron with acidum phosphoricum dilutum—10 drops of the iron with 20 of the acid—in place of the magnesia mixture above. Suppositories of cocoa butter, containing extract of ergot, 1 to 5 grains to each suppository, and one-half grain of opium, may be inserted into the rectum with great benefit. Spousing the body with cold water saturated with salt, and gentle massage of the lower extremities, may also be used. The patient, after the menstrual period, should be kept in the open air as much as possible.

On the other hand, we have cases of menorrhagia which arise from *polypus* of the uterus. This gives no particular pain, but in other respects is the parallel of the menorrhagia above described. These polypi may be of variable size—from that of a pea to a still larger growth. Upon examining the uterus we see protruding, as the os comes in view, a mucous membranous ball, with its pedicle attached, all the way from the internal os to the fundus uteri, very soft and easily detached by twisting with the dressing forceps. These cases often, from the smallness of the polypi, will puzzle us more than almost any other affection of the uterus. The administration of ergot may sometimes, when the pedicle is not

firmly attached to the fundus uteri, cause them to be expelled through the external os, where they may be readily detached by the ecraseúr or forceps.

Several years ago while having a number of these polypi under treatment, and failing with the probe to find them in the cavity, or to expel them with the ergot, I devised what I called a "uterine diagnosticator" for these small growths.



This instrument was made for me by Codman & Shurtleff; and by it I could diagnose the presence of these small tumors; and by drawing the fine watch-spring through a canula could make it act as an ecraseúr in removing these morbid growths. This instrument I described, and my description was published, some seven or eight years ago, in the *Transactions of the Boston Gynæcological Society*. The same instrument was useful in other uterine diseases, acting as a tourniquet in operating for a lacerated cervix, etc., as the neck could be received into the expanded band, and any amount of pressure applied to the screw on the staff which held the expanding springs. The staff and spring passed through a hollow canula; about No. 6 in size could be also used to pass medications into the female urethra, bladder, or uterus. It could also be used for plugging the posterior nares or carrying any desired medication on a sponge to the throat.

My distinguished friend (Dr. Emmet, of New York), has, by adding some improvements to this, made a very serviceable instrument, which he figures in his book as his uterine tourniquet.

We will suppose that we have detached the polypus from the interior of the uterus. The next thing is to apply the formula above given; or we may apply with advantage the nitric acid mixture very lightly, since too severe an application to these cases is likely to be followed by degeneration and ulceration of the tissues. In fact, I have seen fearful results from too strong a preparation of this acid. The same tonics as we have advised in menorrhagia occurring from debility, are applicable to these cases of mucous polypi.

[TO BE CONTINUED.]

ART. III.—**Chloral in Tetanus.** By J. W. TANKARD, M. D., Burgess' Store, Northumberland Co., Va.

In confirmation of the many favorable reports of the therapeutic value of chloral hydrate, I ask space to record my experience with this drug in tetanus. It has fallen to my lot to have had four cases of traumatic tetanus, the two first of which occurred in the early years of my practice, and were treated by the usual remedies (before the introduction of chloral for the treatment of this disease), such as opiates, warm bath, chloroform, etc. In one case I used a solution of morphia by intra-muscular injection, as advised by a distinguished French physician.

The first case resulted from an incised wound of the leg inflicted by an axe. I saw this patient from the first, as I was called to dress the wound, and I had every opportunity to observe the history of the case, and to meet the symptoms by treatment. Without going into details, I will simply say the remedies employed were entirely unavailing, and I had the pain of witnessing the progressive increase in severity of the terrible spasmodic contractions of the muscular system, and especially of the great muscles of the back, the case terminating in death in about a week. The patient was a previously healthy negro man.

The other case was produced by an extensive burn of the feet of an idiot. He lived only about twenty-four hours after my first visit, receiving no benefit from treatment.

With such experience in the treatment of tetanus, I determined, should I be so unfortunate as to have another case, to try chloral hydrate, having in the meantime seen it highly lauded in this disease by the medical press. The next case, which occurred May 15th, 1877, found me without chloral. The patient was a negro girl, aged 12. About ten days previously, she had "stuck a stick" in the calf of the leg, and the wound had nearly healed when tetanic symptoms appeared. I was called as above stated May 15th, and found muscular spasms in various parts of the body occurring paroxysmally, especially in the thighs and back; in fact, most of the voluntary muscles were involved, with the singular

exception of those of the inferior maxilla (a circumstance which gave great advantage in the nourishment of the patient), and soon opisthotonos became very marked. After opening the bowels, I put the patient on full doses of opium and bromide of potassium, to be repeated every hour, two or three hours according to the hypnotic effect. I procured chloral in about two days, and at once added to the opiate and bromide treatment, chloral, grs. x-xij, to be repeated *pro re nata*, and to be pushed to the verge of narcotism, desisting upon the supervention of symptoms of the latter. Under this treatment the symptoms were held somewhat in abeyance, the patient allowed the rest of a few minutes—sometimes a half hour or an hour or more, in sleep, thus directly and indirectly contributing to the system the ability to wear out, so to speak, the disease. This treatment, with liquid alimentation, embraced the measures employed for the patient's restoration, which was effected in about eighteen days from my first visit, or about three weeks from the beginning of the attack.

The 4th and last case occurred in a child two years old, from an incised wound by an axe, severing the extensor tendons of the thumb. I was called to this patient December 25th, 1879, and found the case fully developed, the symptoms having progressively manifested themselves for two or three days previous. Trismus was then a marked symptom, muscular contractions of lower limbs very marked, and soon opisthotonos became very decided. The difficulty of alimentation even by liquids was very great on account of the almost tonic contractions of the muscles of the lower jaw, as well as spasm of the deglutitory muscles in the effort to swallow. I determined again to try the remedies that had served me so well in the last case, proportioning the dose to the age, and repeating *pro re nata*. Though great obstinacy was manifested in the muscular contractions, and great difficulty of nourishing the little sufferer, as above stated, I had the great pleasure of witnessing gradually—very gradually—the complete restoration of the little patient, contrary to the expectation of parents and friends.

From the history of these cases, I am led to conclude

1st. That the old treatment of tetanus offers very little hope of success; and that chloral hydrate combined with opiates and bromides *has saved two lives that would otherwise have perished*; and

2d. That any remedy, to be successful in this disease, must be used *heroically and persistently*.

With the use of arsenic subcutaneously in this disease, I have had no experience, but would not hesitate to employ it, should the remedies employed in cases No. 3 and 4 fail.

ART. IV.—(I) **Patulous Aortic Valve.** (II) **Anteflexion of Womb.**

A Clinical Lecture. By JNO. FORSYTH MEIGS, M. D., etc., Philadelphia, Pa. Delivered at the Pennsylvania Hospital, Philadelphia.

Case I.—PATULOUS AORTIC VALVE.—This patient was entirely unconscious when he was admitted. His pupils were contracted, and his breathing stertorous. His pulse was full, and no marked heart-sound could be detected. The radial arteries were both found to pursue a very tortuous path, and to beat visibly. Upon examining the urine, it appeared clear, acid, specific gravity 1010; no tube casts present, but fully $\frac{1}{8}$ th of its bulk was found to consist of albumen. There have been no convulsions at any time. The fæces have been passed involuntarily. I saw the man very soon after admission, and ordered gr. ij of croton oil to be given to him in a teaspoonful of olive oil. This operated several times. In addition to this, he was given—

R_x. Spts. chloroformi.....gtt. x
 Acid. benzoici.....gr. ij
 Potassii bicarb.....gr. x

M. Signe. To be given every two hours in water.

I was sure, from the coma and stertorous breathing, and from the condition of the urine, that I had a complicated case of Bright's disease to deal with. The urea in this disease is converted into carbonate of ammonia, which poisons the blood. Attending this ammonia-poisoning, there is always more or less cerebral anæmia, which gives rise to the coma and convulsions. The experiment has often been tried of tying the carotid and vertebral arteries in an animal. The first effect produced, according to all observers, is insensibility and great contraction of the pupils. This state is fol-

lowed by that of dilatation of the pupils, coma and convulsions, or death.

Judging from the very favorable action which chloroform exerts in hysterical convulsions, I thought that it would do good in this case. The benzoic acid has, as you all know, a very excellent effect upon the kidneys. For nourishment, the man has been given three pints of milk and one pint of beef tea daily. These articles of diet are not, of course, administered in bulk, but in small quantities at short intervals. Besides the milk and beef tea, I ordered f5j of whiskey to be administered when I first saw him. I did this with some hesitation, fearing that it might interfere with the depurative action of the kidneys, but also fearing that the man was too weak to rally without it. The resident physician, Dr. H. M. Fisher, injected some atropia into his eye-ball, but could not dilate the pupil sufficiently to enable him to examine the eye-ground with the ophthalmoscope. I may add that the pupils were very much contracted up to the time when we injected the atropia.

This case, at first blush, may have seemed to some of you to have presented many of the symptoms of opium poisoning. The great contraction of the pupils, in particular, would seem to point in that direction; but I made up my mind that it was not opium poisoning, from the fact of the existence of right-sided palsy, to which I shall now call your attention, and also from the presence of stertorous breathing:

Notice that the eyes and mouth both diverge towards the left. The right side of the mouth is plainly paralyzed; so, too, are the right arm and right leg—the leg less so than the arm. The man is still dull and inattentive. His respirations are 44 to the minute, and his pulse 116. Notice this very peculiar condition of the radial arteries; they wind along like worms, and pulsate visibly from the elbows to the wrists. I have seldom seen arteries so tortuous. I find that the posterior tibial artery presents the same tortuosity. This tortuousness and visible pulsation of the arteries has never occurred, so far as I know, except where the aortic orifice was patulous.

Here is another curious fact in connection with the case. Notice these rounded, hard tumors on the back of his elbows

and over his phalangeo-metacarpal joints. I opened one of these tumors, from which a very thick, creamy matter escaped, which yielded crystals of tyrosin under the microscope. I do not know whether these tumors are on the bursæ or not.

I have examined this patient's heart very carefully, but I cannot detect any murmur of aortic regurgitation—no soft diastolic sound. Just to the left of the sternum, I catch a soft sound, but that is not aortic. Walsh, of London, says that the condition of the arteries present here is found not only in a patulous aortic orifice, but also in coarctation of the aorta. I think that further examination of the man's urine will reveal the presence of tube casts, and that when the more violent symptoms have somewhat subsided, a regurgitant cardiac murmur will be heard. The kidneys are the great sewers of the body. The bowels may be shut up for days and even for weeks at a time, and no great harm is done; but shut up the kidneys for twenty-four hours, and you will give rise to the most violent symptoms of uræmic poisoning. I have already sketched out for you my treatment in this case.

Case II.—ANTEFLEXION OF THE WOMB.—This patient is 27 years of age. She is very pale, and miserably broken-down in appearance. Her tongue is not much furred, but the yellowness of her conjunctivæ shows a faulty condition of the hepatic secretion. The root of all evil in this case is uterine disease—the cause of so many women's miseries. Years ago, this woman had muscular rheumatism, and she has been troubled with rheumatic pains ever since. Her menstrual flow began at the age of twenty, and has always given her great pain. In some instances there has been fever. The discharge is usually very scanty, and always irregular, running from ten days to three weeks. Accompanying the flow there is supra-pubic pain. The woman is, in fact, demoralized and ruined by pain. Six months ago the pain became constant, and the woman had to stop all work. Her bladder would not hold more than two ounces of urine at a time, and she was obliged to pass her water twenty or thirty times a day. I had the urine examined, and found it entirely natural; specific gravity normal, and all the contents those of the healthy fluid. There was evidently nothing the matter with her kidneys or bladder.

I ordered for her f3ss of the compound mixture of gentian three times a day. Then I proceeded to make a vaginal examination. I found the uterus a little lower than natural. The cervix was of the natural shape, but soft. The os tincæ, too, looked downwards and forwards, instead of downwards and backwards towards the perineum. The long axis of the uterus ought to be in the long axis of the superior straight. You all know that there are four so-called cul-de-sacs in the female—the anterior, posterior, and right and left lateral. In examining these cul-de-sacs by means of my finger, I find the posterior and two lateral cul-de-sacs entirely normal, but in the anterior cul-de-sac, that is between the uterus and the bladder, there was a little swelling, which I at once determined to be due to ante flexion of the womb—my finger touching the ante flexed fundus. I took a Simpson's uterine sound and curved it strongly; and, after failing to introduce it through a speculum, I finally succeeded in passing it along my finger, used as a director. I found the womb to be two and a half inches in length, and very decidedly ante flexed. Together with this ante flexion there is some catarrh of the bladder, and the woman is undoubtedly anæmic and hysterical, and suffers from great constipation.

Now, a great many men, when such a local condition as this is present, would insert a pessary, but not I. I do not like to put a foreign body in a woman's vagina. Peritonitis and pelvic cellulitis have been induced by the simple introduction of a sound, and in one case by the mere application of leeches to the uterus. The first thing to do is to build up the woman's general health. Let her rest for a month or so. Three times a day we shall give her gr. iv of the ammonia citrate of iron, with gentian. Then, in addition, I have been trying, with excellent effect, the following prescription, very highly recommended by Dr. Thomas, of New York, and Dr. Erasmus Wilson, of London:

R. Magnesii sulphat.....5vj
 Acid sulph. dil.....5ij
 Ferri sulph.....gr. xij
 Quiniæ sulph.....gr. xij
 Surup. zingiberisf3vj
 Aquæ q. s., ad.....i5vj

M. Signe. A tablespoonful in ice water three times a day. Besides removing the constipation, this mixture invigo-

rates the appetite and promotes the general health. Another very important item of our treatment, is diet. The woman must take a quart of milk a day, and plenty of bread and butter and good, rare meat.

But how, you will ask, do I intend to cure the antelexion? Why, by making the woman teach her bladder to hold gradually more and more urine. The more urine the bladder can be made to hold, the more thoroughly will the antelexion be reduced. Nine-tenths of her constant micturition is only fanciful. There is no reason whatsoever why the bladder should not do its proper work. She should be made to hold first four, then six, eight, ten, and finally twelve ounces of urine. When it can hold twelve ounces, the antelexion will be largely reduced.

Clinical Reports.

A Case of Opium Habit of Six or Eight Years' Standing, Treated Successfully with the Solid Extract of Coca. By JOHN Q. WINFIELD, M. D., Broadway, Va.

Early in September last, Mrs. — applied to me for treatment of an opium habit of six or eight years' standing. At the time of application she was taking of laudanum daily the equivalent of about forty grains of opium. She was a blonde, somewhat above medium height, with a full, round figure, aged 24. In May last she married an estimable man, who was then totally ignorant of her unfortunate habit.

Up to her twenty-second year, this lady had never menstruated her vaginam, but had had monthly vicarious bloody discharges from the rectum, attended with much pain. These discharges were usually preceded and followed by painful and exhausting diarrhœa. To relieve her periodical sufferings, she had unadvisedly, I presume, resorted to the use of laudanum, until such use became a fixed habit.

An operation for congenital closure of the external os uteri, by Dr. C. C. Henkle and myself restored the menstrual function to its proper organs, but did not, of course, relieve the opium habit; hence her return to me as above stated. The attempt extending through twenty days, to cure the case by reliance mainly upon the strength of her own

will and the extract of coca in 20-grain doses, four times daily, proved a failure. She was now (Sept. 28th), with her own consent placed in close confinement, and only one trusty attendant, besides her husband and physician, allowed to enter the room. No opium prescribed. Ordered 20 grains, four times daily, of the extract of coca.

Sept. 30.—At bedtime suffering extreme—double vision, want of appetite, nausea, diarrhœa, restlessness, twitchings of the muscles, pain in the back and joints, formication, begs piteously for relief. Prescribed $\frac{3}{8}$ of a grain of morphia, concealed in a mixture of wine, bismuth and catechu. She slept well during the night, and was calm and comparatively free from suffering the following morning; coca continued.

Oct. 2.—Night. Suffering, but not so severely as before. Prescribed $\frac{1}{4}$ grain of morphia, concealed as before, and ordered the coca to be continued. Slept well during the night.

Oct. 9.—Night. Suffering somewhat from diarrhœa, menorrhagia, formication and pains in the back and limbs. Prescribed $\frac{1}{8}$ grain of morphia. Slept most of the night.

Oct. 5.—Throughout the day, calm and free from pain and other disturbances. From this time on to the 18th of October she continued to do well without opium. The coca treatment, however, had been steadily kept up. She was now discharged apparently cured, but advised to continue the coca for awhile in diminished daily doses, along with a tonic of quinine, strychnia and iron.

At this writing, November 19th, she is much improved in health and appearance, and does not seem to have the least desire for opium.

Successful Treatment of a Case of Prolapsus Ani of Ten Years' Standing by Hypodermic Injections of Ergotine. By ALEX. HARRIS, M. D., Jeffersonton, Culpeper County, Va.

I was requested to visit Mrs. —, of this county, April 1, 1880. Patient is aged 40 years; is seven months advanced in first pregnancy, and suffering severe pain from a large prolapsus ani—the tumor being the size of small fœtal head, and so much inflamed and tender, that she has been unable to return it for the last two days.

After the liberal local use of cold, the tumor was returned and a palliative treatment instituted till after recovery from parturition (then two months distant) and its immediate effects.

The history of this case is that the patient has had prolapsus ani ten years, always produced by defecation, and lately a walk across her chamber has been sufficient to induce it. General health good.

On September 1st, finding that prolapse had occurred at every stool since the birth of her child, now three months old, and that the erect position, maintained for a short time, was capable to produce it, the treatment by ergotine was begun, by injecting gtt. xij of a solution of equal parts of ergotine and water beneath the prolapsed mucous membrane, *very slowly*, withdrawing the needle after two or three minutes, and returning the prolapse. The immediate effect of this injection was severe pain in the part, passing off, however, in a few hours, and succeeded by general muscular soreness, which lasted from three to four days. The effect upon the prolapsed bowel was marked. There was no tendency to protrusion except during defecation, and that to less than half the former extent. The injections were repeated at intervals of about four days (the subsidence of "muscular soreness" being the criterion as to interval, the prolapse being induced in constantly decreasing size by straining at stool) until six had been given. After this, the prolapse was not induced by a stool, and the necessity for the ergotine terminated.

It has now been a month since the last injection; the patient has been in the active discharge of the duties devolving upon a housekeeper in the country, but has had no return of the malady.

This plan of treatment was suggested to me by a paragraph in *Braithwaite's Retrospect* for March, 1880, which credits Dr. Vidal, through the *Paris Médical*, with three cases of prolapsus ani successfully treated by ergotine hypodermically, as well as the generally received doctrine, at the present day, of the physiological action of ergot upon relaxed tissues.

Correspondence.

The "Ontario Medical Act" prevents American Graduates from Practising.

Mr. Editor,—Permit me, through the columns of your journal, to invite the attention of the medical profession of the United States, to a law which obtains in this

Province known as the "Ontario Medical Act," which precludes foreign physicians from practising medicine in Ontario.

The law in question was enacted in 1874. It incorporated the medical profession of Ontario under the name of "The College of Physicians and Surgeons of Ontario." Under its provisions, a "Medical Council" is composed of one member from each of the several schools of medicine then existing in the Province, and of such schools as might thereafter be authorized to establish a medical faculty, and of twelve members to be elected from the registered members of the "College of Physicians and Surgeons." The Council is empowered to appoint examiners for the admission of students to matriculation, and to make by-laws and regulations for determining the admission and enrollment thereof. It has also power, from time to time, to enact such by-laws as may seem proper, with reference to the terms upon which it will receive the evidence of matriculation, and certificates of colleges, and other institutions not in the Province of Ontario; together with authority to determine a curriculum to be pursued in all the schools of medicine in the Province. The law also provides, that the Secretary of the Council shall keep a book in which shall be entered the names of all entitled to registration; and no one who is not registered can practise medicine. It is optional with the Council as to the terms upon which persons registered in the Medical Register of Great Britain, or are otherwise authorized to practise medicine in the United Kingdom of Great Britain and Ireland, shall be allowed to practice: thus virtually exempting gentlemen of this character from the provisions of this act. The Council is directed by the act to elect a "Board of Examiners," which shall hold its sessions either at Kingston or Toronto, at such time and manner as the Council may direct, whose duty it shall be, at least once a year, to examine all candidates for registration. The penalty for practising medicine without registering, is a fine of not more than \$100, nor less than \$25, for each case. Every qualified person, in the sense recognized by this law, is liable to the same penalty should he fail to register. But no foreigners are entitled to register, with perhaps the exception of those of Great Britain

and its Dominions, until he shall have attended some one of the colleges in Ontario for a period of four years; or, if a graduate of some foreign recognized school, one year; notwithstanding he may have a diploma from a known and reputable institution.

The Council has the further power to except any institution in a foreign country which it may deem unworthy to elect. But as I have thus far been unable to procure a copy of the by-laws, I am unable to state what, if any, institutions have been exempted in the United States.

I have given the general outline of the law adverted to, as accurately and explicitly as its length and obtuseness, peculiar to nearly all laws, will admit, and I trust will answer those of the profession in the United States who may be interested, at least for the time being, or until I shall have procured a copy of the by-laws of the Council.

The law in discriminating in favor of Great Britain, is correct; but in discriminating against the United States, is wrong. But as I am only interested in it so far as it concerns the United States, I shall only speak of it in connection therewith.

I find in the curriculum of the Council for the academic year of 1880-'81, the text-books recommended are:

Physiology—Dalton, Carpenter, &c.;

Materia Medica—Wood, Stille, United States Dispensatory, Bartholow, &c.;

Surgery—Gross, Hamilton, &c.;

Medicine—Flint, Wood, Da Costa, &c.;

Midwifery—Smith, &c.

These are only a few of the products of American authors recommended as text-books to the students, and used in the schools of Ontario; and yet, under the "Ontario Medical Act," none of these, or other more or less great and distinguished American physicians, could attend a case of the simplest kind and charge a fee, without being subject to a fine of not more than \$100, nor less than \$25.

The "College of Physicians and Surgeons" are the sponsors of this law, and no doubt they had the interest of the public in view when it was conceived; but they did a great

injustice to the medical institutions of the United States—most, if not all, of which are certainly equal to those of Ontario. Had they decided to keep out irresponsible, would-be physicians or quacks, no fault could be found; but when they caused a law of the character in question to be enacted, their motive appears to be vulnerable.

The course at the schools of Ontario consists of four years, or six winter months in each year. The course in all our schools in the United States is, I believe, three years; and in most, if not all, the candidate for admission must be a classical scholar. He must show evidence of this qualification, or pass an examination in that character. Here he is examined in the English Language, Grammar and Composition, Arithmetic, Algebra, Geometry, Latin, and in one of the Modern Languages, or Natural Philosophy, as the student may elect. I think there are few, if any, students now admitted to colleges in the United States who are not versed in all the above requirements.

I have before me a list of questions propounded to candidates for graduation by the Examiners of the "College of Physicians and Surgeons of Ontario," and I am sure there is no graduate of a reputable medical school in the United States, who could not answer them with the utmost ease; yet, a gentleman holding a diploma of one of these institutions would have to attend a four-years' course at some college in Ontario, before the "College of Physicians and Surgeons" and the "Medical Council" of Ontario would deem him qualified to practice medicine. If this is not what the law means, when it precludes gentlemen from our colleges to ply their vocation in this Province, then, perhaps, some gentleman of the "College of Physicians and Surgeons," or of the "Council," will rise and explain.

As the existence of this law is comparatively unknown, if at all, in the United States, I deem it my duty to thus lay it before the profession of the country for their information, and with a view to their giving it such consideration as in their judgment it may merit.

As there is no law in the United States prohibiting any one from practising medicine, that I am aware of, no matter

where he hails from, or the source of his diploma, it seems to me that it would be proper for the profession of the United States to take the matter in hand, and petition Congress, at its ensuing session, to enact a law that would not only protect the physician in his rights in Canada, or any other country, so far as it is competent for Congress to do so, but place our medical institutions on a par with like institutions of the world, a place most of them are justly entitled to. This could be done by enacting a law prohibiting any one from practising medicine who holds a diploma from a foreign college, until he shall have complied with certain requirements; or, until such countries as now have laws on their statute books—for what appears to be the express benefit of Americans—shall have repealed the same.

It is not likely that many gentlemen of standing will care to leave the United States to practise medicine in Canada or elsewhere; but for those who may, there should be some protection.

Many physicians leave Canada for the United States, and at once, without question, enter upon the practice of their profession. If, then, physicians of Canada are allowed to practise medicine in the United States without question, why should not physicians holding diplomas from reputable colleges in the United States, be allowed to do the same in Canada? This is a question I will leave the medical profession of the United States to answer and determine.

I am, Mr. Editor, sincerely,

PHILIP CARROLL, M. D.

Simcoe, Ontario, Canada, Nov. 17th, 1880.

[We were not aware of the discriminations made in Toronto against American physicians until the subject was brought to our attention by our worthy correspondent, as above set forth. It is evident, however, that unless a more liberal policy is adopted in Canada towards the capable members of the profession in the United States, some protective measures should be adopted in this country to prevent the influx of graduates of Canadian Colleges into "the States." A rule is not usually good that does not work both ways. In endorsing the suggestions of Dr. Carroll, we but

urge that course which National self-respect should compel us, in the United States, to pursue. Canadians are much more indebted to the United States medical authorities for their text-books and general medical advancement, than are the doctors of this country to them. And not only that—as a matter of policy—it is well known that many more Canadian graduates are applicants for practice in the United States, than are graduates of colleges in “the States” for practice in Canada.

We have no purpose to discriminate against Canadian medical talent, should it come to “the States;” on the contrary, let it come. But when a law exists of such a character as that reported by Dr. Carroll, is in force in Canada, which discriminates against practitioners of recognized ability in this country, we deem it time either to request the proper amendments of the law in Toronto, or else petition the Congress of the United States to pass a protective medical enactment. We are in favor of an exchange of courtesies.—EDITOR.]

Puerperal Remittent Fever—Dr. Parvin's Rejoinder.

Mr. Editor,—The purpose of my communication in the last number of your journal, was not to engage in a contest of opinions, but simply to present some historical facts, which I thought of interest in connection with the claim recently made for Dr. Manson. These facts seemed to me to indicate a partial recognition of malarial puerperal fever by some authorities prior to Dr. Manson's recognition by name and partial description—no recognition so far as etiology and specific therapeutics are concerned. My interpretation of the facts may be wrong; it may be a mistake to regard them as heralds of the dawn—forerunners of Dr. Manson's important work. Nevertheless, I beg their acceptance by the profession, no matter what opinions may be formed from them.

Dr. Taylor in his reply sets aside my facts, I think, chiefly because he has not consulted the authority or the edition referred to by me. For example, I quote from the Seventh London edition of “Burns,” 1828; he from the Third American, 1817. While Burns included in the same chapter “ephemeral fever” and “remittent fever” (in the English edition), it seems to me evident he did not regard them as

identical; and therefore the quotation given by Dr. Taylor from a prior edition, and relating to ephemeral fever, certainly are not pertinent.

Again, Dr. Taylor makes the following statements: "According to Gooch, whose work is clearly referred to by Dr. Parvin," etc.; "Dr. Parvin is mistaken in stating that Dr. Butter termed it puerperal fever." The first assertion I meet with a positive denial; the work referred to was not that of Gooch; its title and date of publication was given. Now, let Dr. Taylor, or any one else, turn to page 335 of the volume referred to, and he will read the following title of Dr. Butter's paper: "*An Account of the Puerperal and Remittent Fever.*" Furthermore, reading the paper, he will find in it, at least three times, puerperal remittent fever. True, it is possible that the late Dr. Churchill, who edited this volume of essays, gave the title, though not finding it used at all in the original paper; yet, without examining that paper as first published, it would be rash to say that Dr. Butter did not use in it the term referred to. Indeed, there is, at least, a probability that he did. At any rate, the term was used as early as 1849, the date of publication of the book. However, my assertion was that Dr. Butter wrote on puerperal remittent fever in 1775; and no one, after making the reference suggested, can think me mistaken.

The concluding observations of Dr. Taylor are worthy of thoughtful consideration. Must a man reside in Philadelphia, New York, or Boston in order that the profession shall heed his utterances? "Out West" and "Down South" have, sometimes, not only been on lip, but in printed words, seeming to signify that the doctor referred to was a nobody and lived nowhere. So, too, it has been my misfortune, sometimes, to read medical criticisms favorable or unfavorable, as I thought, according to the residence of the author of the work received. They were petty, provincial, geographic—instead of wise, just, catholic. We must have a periodical literature that shall represent the profession of the entire country. The American Medical Associations should, I think, at the earliest opportunity, establish a weekly medical journal which may be the organ of doctors North, South,

East, and West, and not the representative of this or that publishing house; of this or that medical college; of this or that medical elique or coterie. It should tell the truth about books, no matter who the authors—where or by whom published; and be wise enough, free enough, strong enough to do justice to every man's work, no matter whether he lives in a great city, or in an obscure hamlet; whether his home is a palace or a log-cabin.

And now, with kindest regards,

I am, yours sincerely,

THEOPHILUS PARVIN, M. D.

Indianapolis, Nov., 1880.

[The distinguished author of the above letter—an honored ex-President of the American Medical Association—makes some excellent suggestions in the concluding paragraph, relating to authorship, etc. We most cordially approve of his suggestion, that the American Medical Association should have a weekly medical journal, that knows no State or section of country, but which should be a true exponent of American medical opinion and practice. Besides the success of the *British Medical Journal*—the organ of the British Medical Association—which is indicative of the success which may be expected in this country of a similar enterprise connected with the American Medical Association—there is very evidently a general demand for such a journal. The more local journals would then become as satellites to the greater light; and at once, American medical literature would be spread over foreign nations. Europeans, at present, confounded by the number of American journals, many of which claim the “largest circulation” and “greatest influence” on this continent, and thus prevented from patronizing any one of them, would then feel confident that, in subscribing to the journal of the American Medical Association, they were getting the cream of American medical contributions of pen and discussions. Then there would be no sectional favoritism, as there is now an apparent occasion for supposing to exist. We have thought much of this subject, and we are the more and more satisfied that the growing demand for such a journal as was prominently suggested by Dr. L. A. Sayre in his late Presidential Address before the American Medical Association, should be satisfied. Such a journal, of course, would interfere with the further growth

of more local journals. But the personal selfishness of a few medical editors who may feel that there journals would be thereby injured, should not stand in the way of the more decided good which would result to the American medical profession. We trust this matter will be urged farther upon the attention of the members of the American Medical Association.—EDITOR.]

Proceedings of Societies.

CLINICAL SOCIETY OF MARYLAND.

Meeting held May 21st, 1880.

Christopher Johnston, M. D., President, in the Chair; Eugene F. Cordell, M. D., Reporting Secretary.

Popliteal Aneurism in Pregnant Woman—Rupture—Ligation of Artery Above and Below—Favorable Result.—Dr. J. Shelton Hill reported a case in which an aneurism of the popliteal artery, in a woman eight months gone in pregnancy, suddenly burst at night. He was hastily summoned, and found the patient pulseless and in syncope from the great loss of blood. A handkerchief was applied around the thigh, applications of mustard and warm water made to the extremities, and a battery sent for. The emergency of the case demanding instant action, with non-medical assistance, and by the light of a candle, he cut down on the femoral artery and ligated it just at the point corresponding to the posterior and lower border of the adductor longus muscle. He also applied a ligature below the aneurism. Labor has not ensued, and the child is still living. Three weeks have now elapsed since the operation; the collateral circulation is established, and the patient's condition promises a favorable issue. [This patient has been since safely delivered.—Reporter.]

Carcinoma of Cervix Uteri.—Dr. A. F. Erich exhibited a specimen of carcinomatous cervix, removed with the écraseur. It was the fifth time he had performed the operation. In the four previous cases the patients recovered; in this case death took place on the second day. The object sought here had been merely palliation. There had been previous laceration of the cervix. Less than 5j of blood was lost in the operation. The specimen had been kept two months in Wickersheimer's fluid, and still preserved its original color and consistency, showing no signs of decay. (In preparing the fluid,

the druggist had to boil it nearly a day before complete solution of all the ingredients.)

Dr. Erich has regarded the operation as a not fatal one. He thought this patient might have recovered if pain had been prevented; it was a case illustrating the fatal effects of pain. He cannot believe that the chain of the écraseur can draw in more tissues than are included in it at first; we deceive ourselves in such a supposition. If the patient be placed in a position on her hands and knees, during the application of the chain, the peritoneum can never be opened.

Dr. Bernard Browne said the case confirmed Emmet's view, that carcinoma uteri develops after laceration and in the child-bearing female. Breisky holds the same opinion.

Dr. Erich said Emmet was an enthusiast on the subject of laceration; it was absurd to say that the disease should occur only after laceration.

Fracture of Spine—Recovery.—Dr. Coskery exhibited the patient, whose case he had reported at a previous meeting of the Society (see *Maryland Medical Journal* for February, 1880, page 262). He had received a severe injury, which had resulted in fracture of the 9th and 10th dorsal vertebræ, together with other serious damage. Crepitus at the site of fracture was very distinct. Paralysis of the lower extremities, bladder and rectum followed. He was treated by a plaster-of-Paris splint extending from the axilla downwards below the knee-joint. He is now able to walk very well; there is, however, still slight talipes.

Fractured Femur from a Patient Aged 106.—Dr. Claude Van Bibber exhibited a partially united extra-capsular fracture of the femur, obtained from a colored woman, whose age was very accurately determined to be 106 years. The accident resulted from a fall down a flight of stairs. It was treated by Smith's anterior splint. Death took place three months after the accident.

Dr. Coskery had several specimens of fractured bones in advanced life—in one case where the patient was known to be 96. The idea is no longer held that fractures do not readily unite in the old.

Insanity.—Dr. Richard Gundry, Superintendent of Maryland Hospital for Insane, read a paper upon this subject, by special invitation. He first considered the subject of causation of insanity; and referring to an analysis of 17,492 cases with reference to this feature, observed that if the causes therein alluded to were as effective as often believed, insanity would be greatly extended. Of intemperance and masturbation,

two of these causes, it may be said, they are often symptoms, rather than causes of insanity; and although both have much to do with the deterioration of mental power, it may be questioned whether the stress laid upon them as efficient causes of insanity is not greater than can be sanctioned by appeal to clinical experience. So of the other proximate causes. Something else and prior to them is wanting to make them effective instruments in the production of mental disease. They serve as the torch, which applied to a train already laid by antecedent circumstances, produces the explosion and conflagration, and without which the disaster might possibly have been avoided for the time. Among the objects of our research, should be the *remote* and universal causes—not merely the accidental or temporary. Among the remote, two conditions stand out prominently—hereditary transmission of insanity or the tendency to its occurrence; and the evolutionary or critical periods of life, in which these forces most usually operate. The former may act alone, though often they go together. The laws of hereditary transmission were considered in their various manifestations. First, in the tendency to transmit the same form of mental disease at the same age and under the same conditions as in those first attacked. The suicidal impulse was noticed as illustrating this law. A variation of the law in '*Atavism*' was also noticed. Secondly, and perhaps more often, the disease descends in a different form and character, often more marked in its symptoms and less prone to recovery. Or if recovery takes place, a recurrence of the attack responds to any trivial exciting cause. Thirdly, insanity is transmitted by transformation of neurotic disease in the ancestor. Thus epilepsy, neuralgia, intense cephalgia in the parent may reappear as insanity in the children. The converse of this proposition is also true. Fourthly, the peculiarities of a highly nervous temperament may, in a succeeding generation, be so exaggerated as to become symptoms of mental disease. So may also uncontrolled propensities and instincts engender like disease in the posterity. The recuperative agencies were alluded to, which antagonize these forces and help to check their influence, or renovate the race already tainted. But for these, the spread of insanity would be enormous.

Passing to the other condition referred to, it was observed that every individual, who lives the full number of years allotted to the race, passes through several distinct stages or phases of life, in each of which he is unlike in many respects what he is in any other. In his life, under one guise or one

name, many personages actually pose. Now, between these stations, there are periods of development, transitional or formative periods, in which the hereditary forces play their most effective part. Moreover, in these periods, the law of evolution, of something better than what preceedes, is at work—gradual in its operation, but distinct in the formation of the more perfect physical, psychical, and moral qualities, which mark the next station, and once completed, the revolution never goes backwards. But the development may be arrested or imperfect, and then imperfect character may result, or the law of reversion show rudimentary elements of character, remaining to mar the general symmetry. With these, disease combining, mental unsoundness may be produced with the special characteristics of the period it originated in. The epochs or stations of life in man are boyhood, manhood and old age. Between them, we have the transitional periods preceding each, viz., childhood, pubescence, and the grand climacteric. In women, the stages of life are more numerous—*girlhood, maidenhood, matronhood, maternity, old age*. Between these are transitional periods, more distinct and more fraught with seeds of disease, than in man. These periods and the development of character therein, were considered at length, especially as to the influence of imperfect development upon the moral and emotional phases of character. From infancy to boyhood or girlhood, is emphatically a period of development. The brain itself is imperfectly developed until 7 or 8 years—a fact indicating a rule for commencing education. At this period, the deviations are generally seen in arrest—thus imbecility, idiocy. Hallucinations, common in childhood, evanescent in healthy children, become fixed in some. The period of pubescence or hobble-de-hoy-hood, is the time when instinct and passion are developed—at the same time that the power of gratification is provided. In the undue relation of these to the inhibitory forces, also recruiting, may be seen the first departure from health in many. The weak are governed by desires and passions; the strong govern their passions. Healthy growth brings out strength of will; disease or imperfect development continues the reign of weakness and evils, such as masturbation, temporary in many, but—banished as strength and manliness increase—become permanent in these, and the evidence of, as well as the fomentors of, unnumbered evils. Various illustrations were given of the influence of imperfect development at this period of life—in the perverted instincts, in the deficient manhood, as well as the actual diseased con-

dition resulting. The lives of Cowper and Savage and Rousseau were referred to. The pubescence preceding maidenhood has its striking physical as well as psychical and moral characteristics. The irregular development or arrest of the catamænia is the physical starting point of deviation. Corresponding deviations in moral development, selfishness, cynicism, were described at length. Acute or primary dementia may occur at this period. Melancholia passing into acute mania was noticed in three cases in which recovery took place after complete establishment of the catamænia. Cases of moral insanity originate at this period, or the character may have that tint without having all the color of that disease. In these cases there are often combined sinuous movements, cold hands and feet, clammy palms, unpleasant to touch. The propensity to fire-raising was alluded to in both sexes at the period of pubescence.

Marriage, or development of matronhood, is accompanied by great physical, psychical and moral changes—usually accomplished without difficulty, but sometimes not without a convulsion of nature. Several cases of *acute mania* resulting at this period were narrated. The imperfect evolution gives rise to perversion of character as well as special physical signs—the harsh voice, the masculine features, etc., and masculine, cold character.

Maternity, with its developmental period (pregnancy) also impresses the *woman* and completes her character. The perversions of character at this period were alluded to; and the longings, the propensity to secrete things, and, in one case, the commencement of kleptomania was traced to this period in a case where a strong hereditary influence existed.

The menopause forms the last transitional period of female life. In all, more or less perturbation is occasioned—in some of physical, in others of psychical conditions. Arrest or imperfect development leaves its traces upon physique and mind. Illustration of the physical disturbance setting in operation a change of temper and feeling, which is perpetuated long after the evolution is performed, was drawn from the history of Mary I, of England, in whom probably both the physical and psychical elements were abnormally involved, and from the biography of the later years of Harriet Martineau. Her negation of former beliefs, her irritation and quarrels with friends and brothers, her unwonted arrogance to old friends, all point this way. The occurrence of insanity at this period was described usually of a depressed type, with delusions of having committed

an unpardonable crime, or an undefined but terrible fear of impending calamity, or of conspiracy against her peace or safety. An analyses of 57 cases was given. The impulse to suicide often accompanies the delusion of having been guilty of great sin. A majority of cases recover, but the disease leaves an impress upon the subsequent life. When the evolution is not accompanied by disease or arrest, the result is a wise beneficent old age.

The climacteric in man is later in the occurrence, and less distinguished by the physical changes; but they are as real, and the psychical and moral changes are quite marked. A happy transition lands him into old age, a changed but robust stage where wisdom and matured judgment supersede the speculation and energy that characterized his manhood. In this period may lurk the seeds of decay and disease. Here, too, we may note the change of character, leading to the verge, if not unto the domain, of madness, suddenly developed libertinism or intemperance, or wild business enterprises. In this period of transition, many a man becomes a moral wreck. Positive insanity may result also. Both conditions may prove temporary; and from the tempestuous upheaval, a dignified and chastened old age result. The life of Sir Cootes Eyre was alluded to in illustration; and the mysterious illness of Lord Chatham, at the age of 59, and lasting for eighteen months, was also quoted as an example of climacteric insanity, terminating favorably upon the reappearance of his gout, and in the re-establishment of all his great intellectual and moral powers.

Analyses, Selections, etc.

Mechanical Treatment of Some Abnormal Conditions of the Foot.—Charles F. Stillman, M. D., of Plainfield, N. J., has a valuable paper in the *Transactions of the Medical Society of New Jersey*, on the above subject, from which we make the subjoined extract:

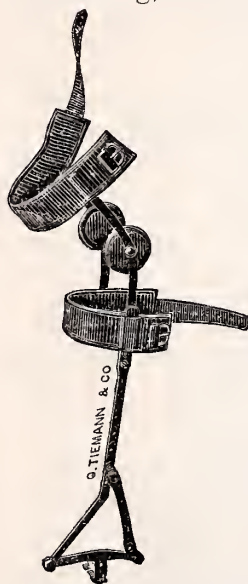
Weak Ankles.—The ankle-joint permits of “two free and two limited movements” of the foot—extension and flexion, and inward and outward rotation. The loss of power in the muscles may be limited to one or several, or may embrace them all. The greater number of cases, however, are those in which the anterior muscles of the leg are impaired, the predominant symptom being a dropping of the foot, the an-

terior half more than the posterior, with diminution of power to keep the foot at a right angle, or to lift the toes while walking. When this is not complicated with changes in the structure of the foot, the latter may either invert or evert as chance may direct, but the tendency is to invert in the majority of cases. The external and internal supports are also weakened, and the ankle gives way laterally, especially externally, on the smallest provocation.

The treatment of the uncomplicated condition is mechanical and physiological. The mechanical treatment consists in supplying, as far as possible, the muscular power of the anterior of the leg, treating the foot as a whole, giving at the same time lateral support. It is then necessary to use a brace, which will allow all the motions of the ankle-joint, and yet be provided with constant elastic power of sufficient force to keep the foot at a right angle when at rest, and afford the extended muscles a chance to contract and revive under the influence of the physiological treatment. I have devised for this purpose a brace which fulfills these conditions, which can be worn with the patient's ordinary shoes, and yet be detachable at pleasure. It consists of a steel strip, parallel with the leg, and worn internally, so as to interfere less with

locomotion, and be opposed to the side towards which flexion takes place; connected above with a leg girth, and extended below at an angle to the back of the heel, where it is hinge-jointed with a horizontal strip whose anterior extremity is connected with the vertical strip above the point of divergence by an elastic cord, which may be lengthened or shortened at will. The horizontal strip is riveted to a strong strip passing under the instep, perforated in the centre to allow the insertion of an oblong pin attached to a plate, fastened into the arch of the shoe. This pin may be turned around after such insertion, and then forms both a firm attachment and a pivot, and is situated in the centre of motion of the foot¹.

The points for which I assume originality and excellence are: 1st. Placing the hinge-joint at the back of the heel, instead of over the ankle-joint, as in every other form of apparatus, thus greatly



increasing the leverage; and, in connection with elastic power anteriorly, which may be augmented as desired, preventing the toes from dropping beyond a desired line, producing a constant elastic power vertically, which causes the foot to assume any desired angle with the leg.

2d. Making the brace and shoe distinct, and connecting the brace with the shoe only by a detachable pivot in the centre of motion of the foot, and to the leg by a girth, allowing it to be removed at pleasure.

The pivot insertion below allows the foot to be everted or inverted at will, without in the least impairing the support of the ankle; and any apparatus like those now in use, which allows motion of the foot only upwards and downwards, does not fulfill the indications.

The phrase, "centre of motion of the foot," deserves a little explanation. If you stand upon one foot, and raise the other from the floor sufficiently to suspend it from the hip, rotating it slowly inwards and outwards, both heel and toe describe arcs of circles of different diameters. Now, while the foot is rotated outward, pass an imaginary line bisecting it longitudinally, and when inward, pass another imaginary line bisecting it, and the point of intersection of these two bisecting lines is the centre of motion of the foot—a line passing through this point and hip-joint being the line of direction of the leg. So that at the centre of motion is the proper point to place a pivot if you wish lateral or rotary motion of a foot in the highest degree, with no opposition, and therefore the pivot of our brace is placed in that position.

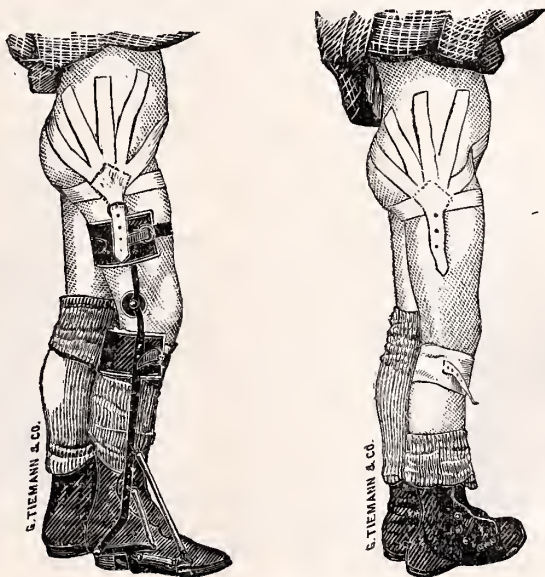
Inverted Feet.—This affection is due to a weakened condition of the peronei muscles, which possess the power of everting the foot, and may be either congenital or non-congenital, the former being much the more common and difficult to treat. In its more advanced stages it constitutes the various types of talipes varus. In simple uncomplicated inverted feet, the deformity is slight, the patient being able to wear an ordinary shoe, the weight of the body keeping it in shape; but the toes point inward and downward, both at rest and in motion.

While the impaired muscles are being treated by electricity, friction, etc., to restore their tone, it is necessary to use a mechanical appliance to restore the balance of power, to diminish the extra contractility of the antagonistic muscles, to keep the foot at its natural angle with the leg, and to evert it. This is done by adding to the brace described under the head of weak ankle, an adjustable elastic cord ex-

tending from the outside of the shoe, opposite the little toe, to the instep strip of the brace. This everts the foot to any desired degree, dependent upon the length and strength of the elastic, provided the pivot is situated in the centre of motion of the foot, and the girth about the leg be so fixed that it cannot rotate. This is accomplished in one of three methods, viz.: 1st. The girth may be broad and furnished with elastic straps which grasp the limb firmly. This is sufficient in a great majority of cases. Or, 2d. The side strip is provided with an oblong pelvic band, with joints at the knee and hip. Or, 3d. By making two fixed points on the limb by means of strong moleskin adhesive plaster. One of these is to be fixed upon the thigh and the other upon the leg, or a single one upon the leg.

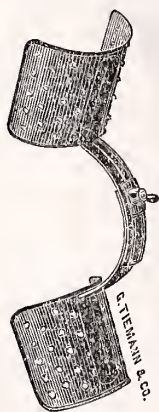
The thigh attachment is made as follows: A square piece of the adhesive plaster is cut in the shape shown in the drawing, and to the centre is sewn a perforated leather tongue, which is to pass through a buckle on the thigh girth of the brace. The object of this thigh attachment is to make it impossible to abduct the foot when the brace is worn.

The object of the leg attachment is to prevent the girth from slipping around, as when this occurs the action of the everting cord is destroyed. A piece of adhesive plaster is cut in the shape shown in the drawing, and a leather tongue



attached to the pointed extremity, after being fastened to the leg. When the brace is applied, this tongue passes into the buckle of the girth, together with the tongue of the girth, effectually preventing rotation, as the one buckle holds two tongues, one fastened to the leg and the other to the girth, and each pulling in a contrary direction. These two immovable adhesive attachments afford us the fixed points we require in obstinate cases, and allow us to use a constant elastic power to relieve the super-contraction of the opposing muscles, while relieving the over-distended ones to which the deformity is mainly due, giving us the opportunity to restore these by physiological treatment.

Talipes Equinus, when not complicated by structural changes among the bones of the foot itself, may be reduced by the brace just described, with the addition of two elastic cords, of sufficient strength, passing from a point in the side strip near the girth to points on the sole opposite the bases of the great and little toes. But when associated with structural changes among the bones of the foot, so that the foot cannot be restored to its normal shape without operative or mechanical interference, I would suggest the use of an adjustable bracket, of the form shown, fixed to the foot and leg by immovable attachments. I devised this bracket several years ago, for a contraction of the arm at the elbow, which it succeeded in extending by gradual adjustment.



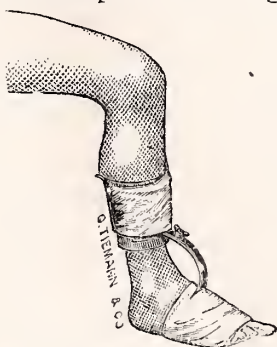
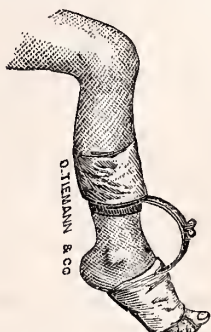
Our first aim must be to restore the proper lines of the foot as a whole, by reducing it to its proper position as near as can be, without tenotomy, if possible, and then fixing it in this position by some firm inflexible dressing, as plaster-of-Paris, or the adhesive plaster and flour paste dressing. This must also be applied to the leg.

The bracket is applied as follows, when used with the adhesive plaster and flour paste dressing: The foot and leg are to be sheathed longitudinally by strips of strong moleskin adhesive plaster, placed about one-quarter of an inch apart, and encircled by other strips, the ankle joints and vicinity being uncovered.

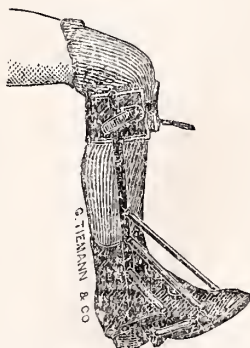
The clamps of the bracket are then loosened, and it is adjusted upon the foot and leg, the terminal plates being bound down firmly by broad bands of adhesive plaster of sufficient length. A little flour and cold water are now mixed together to a creamy consistence, and smeared over the nap of

the adhesive plaster, and rollers of unbleached muslin applied, the smearing still being continued until several thicknesses of the bandage are in place. When this dries, which will be after a short interval, we have a firm, well-fitting attachment which suffers no subsequent expansion or contraction, as does plaster-of-Paris, and holds the bracket in just the desired position.

At the next visit, flex the foot strongly, the clamps of the bracket being loosened, and when a desired amount of the contraction has been overcome, the clamps are to be tight-



ened, and at that angle the foot will remain. This can be repeated as often as necessary, until the contracted muscles are gradually stretched to nearly their normal calibre, when the elastic brace already described may be used until the cure is entirely perfected.



Talipes Varus.—The mechanical treatment is founded upon the idea of aiding and restoring the normal relations

of the foot in its different parts, and the balance of power in the muscles of the leg. Any foot that is not so distorted but that it can be brought into its normal shape and relations by the hand of the surgeon, by bandaging, whether flexible, adhesive or immovable, by the use of my bracket and fixed dressing, by any extension shoe, or by tenotomy, or so nearly so that it can be inserted into an ordinary shoe, can be cured by the attachment of my club foot brace to such a shoe, for it combines in itself the essential principles of the most effective methods of treatment.

In a previous description of the rigid part of the brace, we have seen that it has but one *fixed* attachment to the leg below the knee, and that by a girth about the upper part of the calf of the leg, corresponding to the origin of the muscles, and one *movable* attachment by a pivot in the centre of motion of the foot; so that beyond protecting the ankle joint and stiffening the shoe from the heel to the mediotarsal joint by the arch plate, to which is attached the pivot, these fastenings possess no regulating power over the foot in the least, except when the shoe be attached to the brace by rubber cords.

The uses of the three elastic cords attached to the club foot brace are:

1. The cord passing from the extremity of the horizontal strip to the angle of divergence in the vertical strip controls the extension of the foot at the ankle joint, and acts against extra contraction of the tendo Achillis.

2. The everting cord passing from the instep strip to the toe of the shoe opposite the base of the little toe, acts in place of the peroneus brevis, having practically its origin in the immovable girth about the calf and its insertion in the sole considerably anterior to the mediotarsal joint, giving it a tremendous everting power if the girth be fixed immovably as already detailed.

3. The abducting and rotating cord passes from the base of the little toe to a point in the brace near the girth, supplying the place of the peroneus longus, and acting against the anterior and posterior tibial muscles, whose contraction causes the deformity; and as it is inserted at a point in the sole which is really the apex of the deformity, a power is exerted in exact proportion to the length and strength of the elastic tubing, twisting the anterior half of the foot directly contrary to the tendencies of the contraction.

My elastic brace is really a combination of the essential principles of the various club foot shoes with the essential

principles of Barwell's system of elastic muscles. It possesses the very great advantage over Barwell's system of instant removability, being taken off and put on at pleasure, and furnishing at the same time, which Barwell's does not, an articulated, firm support on the outside of the leg, preventing the ankle from turning. It allows the patient to wear a close fitting, easy shoe, as in a normal foot, and has no constriction or encirclement of the limb or foot other than the shoe, below the girth about the calf, allowing all the natural movements of the foot full play, simply assisting Nature's efforts to guide these in their proper direction. It is light, inexpensive and lasting, and may be readily attached to any shoe.

The weight of the body is the most powerful agent for good or bad which we have in the treatment of club foot, and the most important factor, also, in its production. If the relations of the foot are wrong, the weight of the body tends to increase the deformity; but if, by an elastic retentive apparatus, we can put the foot into its normal relations the weight of the body tends to press out the angularities and keep it in proper shape by a power just in proportion to the weight of the person and the amount of walking and running that is done. One of the best features of my elastic brace is, that it not only allows, but actually assists the walking, and consequently is a powerful agent for permanent cure.

If the lateral twist of the foot at the mediotarsal articulation be so great and so unyielding that it cannot be placed in an ordinary shoe or conform to the shape into which the sole can be twisted, it must be treated by either operative or mechanical means until it can do so, when it is to be placed in the elastic brace until the cure is complete.

The mechanical treatment consists in restoring the relations of the foot, whether by the hand of the surgeon, by bandaging, by massage and general manipulation, and the retention, between such applications, in some fixed dressing, as the flour-adhesive or plaster-of-Paris, applied and allowed to set while the foot is being held in, as nearly as possible, its normal position. It also consists in restoring the balance of power in the leg by reducing the extra contraction with the adjustable bracket before described. Cutting the tendons may be resorted to when desired, but it seems to me that the use of this bracket will, by the substitution of a gradual for an operative procedure, diminish the frequency of the operation with its attendant evils.

Hæmoptysis, Hæmatemesis and Menorrhagia.—W. F. Barr, M. D., of Abingdon, Va., in *Gaillard's Medical Journal*, reports some cases of interest, showing the virtues of the Seven Springs [Va.] Alum and Iron Mass. He says:

CASE I.—Mr. W., age 39, of tolerably good constitution, habits good, one leg amputated, was attacked with hæmoptysis. I prescribed opium, ipecac and acetate of lead in usual doses; mustard plasters to the chest; bowels to be opened with compound cathartic pills; diet light and cool. The discharge of blood was checked for a day or two, after which he commenced vomiting blood. I then resorted to the hypodermic administration of fluid extract of ergot. For a short time the hæmorrhage was checked, only to return again. I prescribed opium, acetate of lead and ipecac, and occasionally tannin, gallic acid and elixir of vitrol, which had but little effect. I then returned to the hypodermic use of the fluid extract of ergot; I also applied a blister over the epigastrium. The diet, to be cool or cold and light.

Despite the above treatment, the hæmorrhages would return every day or two. I then prescribed the Seven Springs (Abingdon, Va.), Iron and Alum Mass, every two, three or four hours. I gave a dose about the size of a compound cathartic pill. The hæmorrhage was soon checked, and has remained checked for about twelve months; but I kept the patient on the use of the remedy for some time.

CASE II.—Mrs. W., age 30, of good, healthy constitution, accustomed to hard work as a housekeeper, was attacked with menorrhagia. I prescribed for her opium, acetate of lead and ipecac, tannin, gallic acid, alum and nutmeg and elixir of vitrol, etc., but the discharge still continued. I then prescribed for her Seven Springs Iron and Alum Mass, in pills the size of compound cathartic pills, every two, three or four hours. The discharge ceased, and I discontinued the use of the medicine. The lady, however, fearing a return of the attack, occasionally takes a pill several days at a time.

I have found the Seven Springs Iron and Alum Mass an excellent remedy in hæmorrhages; although in *large* doses it acts as an aperient, in *small* doses it acts as an astringent. This is no more paradoxical than to assert that ipecac in *large* doses will produce emesis, and in *small* doses will check vomiting; that rhubarb in large doses will purge, and in small doses check purging. Calomel in small doses produces a cathartic effect, and in small doses it checks diarrhœa.

Some Symptoms of Bright's Disease.—Dr. Robert Edes, of Boston, remarks that the nervous symptoms found in con-

nection with renal disease are of two kinds. The first are the so-called uræmic symptoms; the second, organic diseases of the brain—especially cerebral hæmorrhage, so frequently seen with the contracted kidney. The uræmic symptoms include headache, often with vomiting, coma and convulsions. Headache is exceedingly common, and derives much importance from its severity, and also from the fact that it may prompt the patient to seek advice, or may precede other symptoms for months. But little is distinctive about it except its frequent recurrence, when not constant, and usually an absence of that localization which would lead one to suspect a definite cerebral lesion. The character of the pain is hardly to be distinguished from a nervous headache; its origin must be determined by the presence or absence of other symptoms. The vomiting, which often forms a troublesome adjunct, is by no means sure to give relief. Convulsions and coma may, with advantage, be separated; for while convulsions, if long continued or severe, especially if tending toward a fatal result, run into coma, yet the reverse is by no means usual. In many cases, coma comes on gradually, and terminates life without there having been any tendency to convulsions. The condition which furnishes the largest proportion of so-called uræmic convulsions is the puerperal state. Among the respiratory symptoms are some which may properly be called uræmic, though not usually mentioned as such. We may, of course, have dyspnœa, depending upon actual pulmonary obstruction, either as œdema of the lung or as pleuritic effusion or hydrothorax. But it is not unusual to see a degree and kind of dyspnœa not to be accounted for by these conditions, that is out of all proportion to the amount of œdema to be detected by auscultation, and appearing and disappearing with great rapidity. This is of a nervous or uræmic condition. A peculiar form of respiratory disturbance, once thought to be pathognomonic of fatty degeneration of the heart, but since shown to be connected with various diseases which impair the sensitiveness of the medulla, the writer has met with several times in cases of contracted kidney. This is the Cheyne-Stokes respiration, which may accompany or alternate with marked dyspnœa. This phenomenon consists in the respiration, from a normal or an exaggerated intensity, becoming gradually more and more feeble until none can be detected. After this period of apnœa, which may last from ten to twenty seconds, a slight inspiration takes place. The whole cycle may occupy about a minute, and justifies a very unfavourable

vorable prognosis. The cause of this condition is probably the narcotism of the medulla oblongata by uramic products, so that it no longer responds to the ordinary stimulus until the accumulation of carbonic acid, during the apnœa, becomes large enough to put the apparatus again in motion; the excess is eliminated, and, the stimulus failing, another period of apnœa results. Dr. Bright himself pointed out that a hard pulse was associated with Bright's disease, and this fact has seldom been lost sight of in accounting for the hypertrophy of the heart. A person is exposed to cold; if observant, he notices that his urine is scanty and high colored; he begins to bloat, perhaps, quite rapidly; and this swelling may be quite extensive, involving legs, genitals and face, and with it there may be some pleuritic effusion. There may be but little pain of any kind, though possibly some in the back. There is likely to be headache and vomiting. You find a good deal of albumen, and casts of various kinds, not including the waxy. This first attack may, of course, vary in acuteness and in severity. If not very severe, recovery may often be complete, or a worse attack after a partial cure may follow after a slight exposure. Edema of the lungs may be a troublesome symptom, and diarrhœa, caused by intestinal ulceration, is by no means uncommon. The end is likely to come with gradually increasing weakness, confusion of mind, dullness, delirium, stupor and convulsion; or all of these latter symptoms may, after an illness of years, be crowded into the last few days of life. Again, a middle-aged, active man suffers from headache for some time. It is supposed to be either an exaggeration of the headache which he has always had, or due to over-work. He pays but little attention to it, except when it is bad enough to keep him from work. His general health is deteriorated. He consults a physician, who finds that his urine has been rather copious, obliging him to get up two or three times during the night. It is light as to color and as to specific gravity. It contains little albumen, and but a few hyaline casts. His eyes are examined, and in the retina are found whitish streaks and patches, with perhaps some congestion of the disk, and some hæmorrhage. Dimness of vision might well have been the first symptom. The sphygmograph gives a characteristic square-topped tracing of high tension. The impulse of the heart is powerful, and its area of dullness enlarged. The headache (probably accompanied by vomiting) yields to nothing but morphia, which is probably kept as a last resort. After a few days of severe headache, a hemi-

plegia is noticed, which, if the hæmorrhage is large enough, may either terminate life, or add another affliction. Dyspnoea, which goes and comes, and is dependent, in part, upon œdema of the lungs, and, in part, is of nervous character, is likely to be a troublesome symptom. Dropsy may be absent or very slight; it begins in the paralyzed hand, and affects the feet only after the circulation has become very feeble. Delirium may be present for weeks, even while the patient is able to walk about or ride out.—*Boston Med. & Surg. Jour.*, July 1st, 1880.

So-Called Specific Treatment of Typhoid Fever.—In the *Cincinnati Medical News*, Prof. Bartholow says: There are two main points in the treatment of this fever, termed by the Germans the specific treatment: (1) Calomel given early in the disease, in ten grain doses, for three or four days during the first week of the disease; and (2) the administration of iodine, either in the form of tincture or Lugol's solution. The latter form is preferable. He considers the above method certainly an advance in the treatment of typhoid fever. It is not termed specific on account of any influence it has directly upon the typhoid fever, but from the power of the iodine to destroy the germs of the disease in the discharges of the intestinal canal, on account of its well known antiseptic properties.—*Canada Lancet*, June, 1880.

Rest and Strychnia in Acute Myelitis.—At the recent meeting of the American Neurological Society, Dr. Jewell, of Chicago, said that of late he had met with very gratifying success in the treatment of acute myelitis. This he attributed mainly to two agencies: (1) The most thorough and complete rest, for a longer or shorter period, according to the circumstances; and (2) the use of strychnia in very large doses at a much earlier period than it has hitherto been prescribed. The moment the temperature falls to the normal degree, he begins with the strychnia, and rapidly increases the dose until some of its physiological effects are produced. In one serious case, he gave as much as one-tenth of a grain three or four times a day. Instead of aggravating the symptoms, as one would suppose, the remedy had a most happy effect, and he had every reason to be satisfied with it.

Dr. Seguin thought that perhaps Dr. Jewell attached too much importance to the measures which he had adopted, since it is generally recognized that myelitis of the anterior horns sometimes get well spontaneously.

Dr. Hammond remarked that he had always been led to believe that patients with inflamed spinal cords were peculiarly susceptible to the action of strychnia, and that in them the physiological effects of this alkaloid could be produced by much smaller doses than if the individual were in good health. Perhaps, however, the remarkable results which Dr. Jewell had obtained were due to the fact that he used the strychnia in very large doses. It is well known that the effect of many remedies are entirely different when given in large and small doses. In his next case of acute myelitis, he certainly thought he should make trial of Dr. Jewell's method.—*Boston Med. & Surg. Jour.* July, 1880.

Treatment of Chronic Cystitis Attendant upon Hypertrophy of the Prostate.—Dr. W. H. Ford, of St. Louis, thinks that, in the treatment of such cases, we should not stop with the use of the soft catheter for the evacuation of the bladder, with washing out the bladder when there is ammoniacal fermentation, with obviating constipation, and with the use of anodyne suppositories, diuretics and tonics directed toward the genito-urinary organs. Some other measures to which he has had recourse are the use of jaborandi, puncture of the bladder through the rectum, and injection of strong solutions of nitrate of silver into the bladder. Each of these procedures is adapted to peculiar cases. Jaborandi is indicated where there is reason to suspect that latent or subacute nephritis is threatened. Under such circumstances there is a disposition toward a typhoid condition; the tongue is parched and shrivelled and thirst usually pronounced. The temperature ranges about 102°F. or above it; the pulse is weak and abrupt, sometimes dicrotic, and frequent. Nutrition must be systematic with strong animal broths; quinine and carbonate of ammonia, and a moderate quantity of stimulus should be administered. He gives from twenty-five to thirty drops of the fluid extract of jaborandi in water at bedtime, and another similar dose at four A. M. Sweating usually comes on within an hour after each dose; there is some variable amount of ptyalism, which, after a time, ceases to make its appearance. The secretion of the kidneys is increased, and the patient sleeps under the temporary depression of the drug, which is prevented from becoming too pronounced by the associated alcoholic stimulus. The jaborandi should be administered in this way every night for a week or ten days, or until the tongue remains moist, the skin becomes supple and perspirable, and the polyuria or its reverse

abated. No bad effect has been observed by the writer from the use of jaborandi in this way—indeed, only very satisfactory results in some cases, and in others at least temporary benefit. It does not enhance the existing cystitis, and he is convinced that it directly relieves the congestion of the kidneys, and saves the system from the threatened uræmic intoxication. The object of puncturing the bladder through the rectum is to drain the bladder and to allow the cystitis to subside, until in the course of time, the urethral canal will again tolerate the catheter, or until swellings, tortuosities or cavities due to prostatic abscess shall have disappeared, so that it shall have become possible to pass a catheter. As soon as all the urine passes once more by the urethra, either naturally or artificially, the recto-vesical orifice will almost invariably close, and if it does not, its existence will be a matter of no special moment. The decussation of the muscular fibres of the bladder in the situation of the puncture strongly dispose to this result, and, indeed, the orifice may actually become as subject to the will of the patient as if surrounded by a true sphincter muscle. The writer has seen this treatment attended with great benefit. The indication for the employment of nitrate of silver, consists in advancing cystitis with increasing pain upon catheterization, pain during and especially after urination or the use of the catheter, and increasing general prostration. Here the customary routine of catheterization and washing must be interrupted and other methods adopted. The plan the writer usually adopts is one which has been attended with great good. It is to begin with a solution of five grains of nitrate of silver to the ounce of water, and after from four to seven days to increase the dose to ten grains to the ounce, and then again after a proper interval by five grains more, for three or four injections, until the patient is well. This method is only applicable to subacute cases which have failed to be benefited by the systematic use of the catheter, with regular washing of the bladder. The bladder should be washed out with warm water just before the injection. Very nearly two ounces of the solution is injected into the bladder through the catheter, and when this has been done, the catheter is withdrawn just beyond the vesical neck, and a drachm or two injected into the prostatic urethra, the catheter being at once pushed back into the bladder. When the pain becomes severe, the solution should be allowed to escape. The bladder should now be washed out three or four times with hot water and hot baths, and suppositories of belladonna, opium and camphor

should be resorted to. The urine becomes clear, depositing only a little cloud of mucus, and some ehloride of silver. The appearance of the urine should be carefully watched. As soon as cloudiness begins to reappear, and the act of catheterization becomes again painful, another injection should be given. A perfect calm seems to succeed the perturbation, pain and annoyance hitherto experienced. Prompt improvement sets in. The patient is made well enough to get about. Instead of producing retention, the injections appear to relax the urethra, so that the stream of water is fuller, and is passed with less straining than under any other circumstances. The salt seems to act as a powerful sedative upon the intensely irritated organs. The danger of advancing cystitis, and threatened nephritis with progressive uræmic intoxication will be successfully met.—*St. Louis Courier of Medicine*, July, 1880.

Chronic Cystitis—New Treatment.—At the May meeting of the New York Academy of Medicine, Dr. Frank H. Hamilton read a paper entitled a new remedy for chronic cystitis and other chronic inflammations. In August, 1875, Dr. Hamilton was consulted by a lawyer, Judge G., aged 63, for chronic cystitis. The patient had always been a man of temperate habits, except that he used tobacco excessively. He had, however, for a long time worked hard, and neglected the care of his health. About a year before consulting Dr. Hamilton, he had been obliged to give up his work on account of the cystitis, and devote himself to its cure. He had tried a large number of remedies, but with no success. When seen by Dr. Hamilton, he was emaciated and weak, and had to pass his water every half hour or hour. At times he suffered intense pain in the bladder. His appetite and digestion were impaired. An examination showed that he had no stone nor enlarged prostate. His urine contained about 25 per cent. of pus with renal casts. He was advised to drink flaxseed tea for its aperient and diuretic effect; to take a hot bath every night, and to ride horseback every day. The flaxseed was soon given up, as it disturbed his digestion; the hot baths were soon discontinued also. The plan of horseback riding was at first protested against, as the slightest jolting always gave him great pain. It was, however, undertaken. At first the horse walked very slowly. At the end of a month he was able to ride two miles; at the end of two months the pus had disappeared from the urine, and in six months he was completely well.

Dr. Hamilton said this was not the only case he had seen benefited by this kind of treatment. A physician from New York city had suffered for a long time from cystitis and pyelitis. Medicines and rest had been faithfully tried, but with no effect. He finally began drinking flaxseed tea and riding horseback. He was completely cured, but ascribed some of the good to the flaxseed tea.

Another physician with whom he was acquainted had suffered in the same way, and had been cured in much the same manner, though in this case the patient had driven in a carriage more than he had ridden.

Dr. Hamilton was aware that the value of constitutional treatment in chronic cystitis was well known, and had been insisted upon by others. He did not think, however, that this particular form had ever been brought forward. From some remarks made by Dr. Gouley, he inferred that that gentleman was aware of its importance, but it was not mentioned in his book. Dr. Hamilton wished to lay stress on his belief that constitutional causes lay at the bottom of a great many chronic inflammatory conditions, and a knowledge and remembrance of this fact was necessary to successful treatment. Anæmia and disturbances of digestion were often a part of this constitutional vice. Such diseases as chronic conjunctivitis, otitis, bronchitis, pharyngitis, laryngitis, urethritis and arthritis, are examples of inflammations dependent generally on constitutional causes. Not one of these can, as a rule, be cured by local measures. Even a chronic congestion and displacement of the uterus may be relieved by riding in the saddle and attention to general hygienic measures. Dr. Hamilton would not depreciate the value of other forms of exercise and recreation, but he was inclined to consider the horseback riding the best.

In reply to an inquiry whether horseback riding was contraindicated in cystitis with enlarged prostate, he stated that he believed it was.

Dr. H. C. Harwood stated that as a personal sufferer from cystitis, he could corroborate Dr. Hamilton's views as to the value of constitutional treatment. Several years ago he was working very hard, and had neglected proper exercise. His urine was examined at that time by a friend, who told him that he could not live six months. His treatment, though not exactly like that suggested by Dr. Hamilton, consisted in attention to hygiene chiefly. He ate very freely of grapes, drank a glass of sweet cider every day, and took cod liver oil. This resulted in a cure. He believed in the horse and

saddle, and thought that the opinions in regard to their value expressed by Dr. Hamilton were correct.—*Medical Record*, July, 1880.

Citrate of Caffein as a Diuretic.—Dr. D. J. Leech reports in the July issue of the *Practitioner* his experience with caffein as a diuretic, and claims for it in some cases some advantages over digitalis, copaiba and other diuretics. Its diuretic effects seem to depend in part on the influence which it exercises on the general circulation and in part on its specific action on the kidneys. It not only acts like digitalis, as a vascular diuretic, but also specially stimulates the kidneys. Its action probably depends on the dose in which it is given. A large dose may lessen blood pressure, and thus tend to reduce rather than increase the flow of urine. Too small a dose equally fails in promoting diuresis since it does not sufficiently stimulate the circulation. Its successful use is interfered with by two other causes: One is the readiness with which the system gets accustomed to caffein, to the fact that the patient may be an habitual coffee drinker. The other is the variability of its action on different organs dependent on individual peculiarities. It will be remembered that coffee infusion resembles caffein in its variability of action. Most drinkers feel no result from it; but a cup of coffee will, in some, cause sleeplessness; in others diarrhœa; diuresis is not uncommon, and even salivation has been produced by its free use. Its advantages are: It can be readily administered in pill, or in mixture, or in a cup of coffee. It is a tonic and stimulant diuretic, not depressant. It acts quickly, if not effectually in the first twenty-four hours; it rarely acts at all unless the dose be increased. It may be given safely. When the limits of the full dose have been reached, warning in the shape of headache or sickness is usually given, and these symptoms pass off at once on withholding the drug. Often the effect on the kidney ceases the day after the caffein is stopped. The good derived from its use seems to render it worthy of trial in ascites and anasarca, especially where other drugs have failed. In cardiac dropsy its utility seems placed beyond all doubt.

Cerium Oxalate for the Alleviation of Cough.—The committee appointed by the Therapeutical Society of New York submitted the following conclusions: Cerium oxalate may be given safely in doses of ten grains or more, three times a day, for many days in succession. The only symptom noted

from such doses is a slight dryness of the mouth for the first few days. It is probably more efficient when taken dry upon the tongue. Its effects are not fully apparent until it has been taken two or three days, and the effects continue about the same length of time after its use is suspended. For chronic cough, it is best taken on an empty stomach, early in the morning and at bedtime, with other doses during the day if required—the initial dose for an adult being five grains. It is, in a majority of cases, an efficient cough medicine, at least for a considerable time, and is very valuable as an alternate with other drugs used for that purpose. It does not disturb the stomach as do opiates and most other cough remedies, but, on the contrary, it tends to relieve nausea and to improve digestion. The different preparations in the market are not of equal value, and when success is not obtained with one, another should be substituted.—*New York Med. Jour.*, July, 1880.

Ergotine Hypodermically in Dysentery.—Dr. Robt. M. King wishes to bring to the notice of the profession, the action of ergotine when hypodermically used in dysentery. Some months ago he wrote an article which was published in the *Medical Brief*, setting forth the value of this remedy as a hæmostatic in a well established hæmorrhagic diathesis. After the various astringents, together with opiates, had been successively tried, as well as the administration, *ad libitum*, of Squibbs' fluid extract of ergot, all to no effect, ergotine given in three grain doses, hypodermically, instantly checked the bleeding. As long as the ergotine was being used the hæmorrhage was under control, and when the agent was suspended, the bleeding would start up until the system was again under its influence. Reasoning *a posteriori*, Dr. King came to the conclusion that ergotine, from its known action upon the vaso motor nervous system, increasing the action of this system and causing contractions of its arterioles, would be applicable in a case of dysentery where there was evident dilatation of the blood-vessels, and low blood pressure as told by the condition of the pulse. Bartholow refers to its use in chronic dysentery and diarrhœa, and says that the preparations of ergot diffuse rapidly into the circulations, cause the action of the heart to become slower, and brings about an enormous rise in the blood pressure. Dr. Bartholow's opinion of the physiological action of this drug has been thoroughly verified in the following case reported by Dr. King: The patient, a female, aged forty-five years, had

suffered for several weeks with dysentery. The prominent symptoms were great tormina and tenesmus, mucus, shreds of membrane, some purulent matter, with frequent and scanty evacuations. The pain was paroxysmal from fifteen to twenty minutes prior to stool, and for some length of time afterwards. Temperature from $99\frac{1}{2}$ to $101\frac{1}{2}^{\circ}\text{F}$. Great nervous depression, anorexia and intense burning pain in her stomach. The usual remedies, including mercurials, tannin and bismuth, together with enemata of acetate of lead, nitrate of silver and carbolic acid having been tried, and quinine, chloral and bromide of potassium having been freely used all without good, Dr. King concluded to resort at once to ergotine, and accordingly administered hypodermically one-eighth of a grain of morphine—with three grains of ergotine. The administration was followed almost immediately by a relief from pain, etc., and a quiet sleep of three or four hours. Seven hours afterwards, he again administered the ergotine by itself just at the approach of a paroxysm of suffering, with marked relief of pain and a postponement of stool for three or four hours. On the next day, ergotine was again used, and the last time it was given hypodermically, when an interval of rest was secure for thirty-six hours. The doctor thinks this treatment is worth trial in dysentery and kindred affections, with low blood pressure and dilatation of blood-vessels.—*St. Louis Clin. Record*, June, 1880.

Baptisia Tinctoria.—Dr. I. J. M. Goss, of Marietta, Ga., thinks baptisia is one of the remedies that has a specific affinity for the ganglionic and cerebro-spinal nerves. It impresses the mucous coat of buccal cavity, and the lower portion of the intestinal canal. It also acts upon the glandular system. It possesses in a very high degree an antiseptic property. It counteracts a tendency to molecular death and decomposition. In continual fever, where there is a septic condition always present, alternated with the other remedies indicated, baptisia always manifests its positive power over the zymotic poison. Cases may be terminated much sooner by its timely administration. He has fifty cases recorded in which baptisia either produced a speedy crisis, or materially curtailed the duration of the disease. Its indications in this form of fever, are delirious stupor, dark red face, eyes injected, diarrhœa, brown coating upon the tongue, which is often dry, offensive breath, sordes on the teeth, offensive stools and urine. It does not take the place of aconite in this fever, or in any other disease, but it simply counteracts

the septic poison in the blood. Not only in this disease, but in scarlatina, small-pox, dysentery, puerperal fever or diphtheria, characterized by this septic tendency, baptisia is the remedy. Also in chronic sore mouth, malignant dysentery or diarrhœa, offensive leucorrhœa or lochia, and offensive ulcers on the skin, are all amenable to this remedy. In putrid diphtheria or angina, locally applied and given internally, it acts very promptly. It is a remedy in this tendency to putrescency and softening and breaking down of tissue in any part. It will be seen that it is not a remedy to be used routinely, or prescribed according to the name of the disease, but according to the pathological indications. It is not a remedy for fever *per se*, nor for acute forms of inflammations, unless they are characterized by this tendency of metamorphosis or decomposition of tissue; but is a remedy wherever this destructive tendency exists. In dysentery, where the discharges are very offensive, and resemble the juice of prunes, or are mucopurulent, with typhoid symptoms generally, baptisia will do good service. In such a condition there is enfeebled capillary circulation, which tends to molecular death of the parts; and this constitutes the indication for this prime stimulant of the capillaries. The dose need not, nor must not, be large—from $\frac{3}{4}$ to 2 drops, as it is toxic in over doses.—*Medical Summary*, June, 1880.

Syphilitic Iritis.—Dr. G. S. Ryerson, of Toronto, thinks it is often in consequence of its insidious onset and painless character—that onset of this disease is overlooked. He agrees with Mr. Hutchinson in thinking the subjects of infantile iritis are more frequently of the female than of the male sex. The age of five months is the period of life at or about which syphilitic infants are most liable to suffer from iritis. It is often symmetrical, but quite as frequently not so. As it occurs in infants, it is seldom complicated, and is attended by but few of the more severe symptoms which characterize the disease in adults. Notwithstanding the ill-characterized phenomena of acute inflammation, the effusion of lymph is usually very free and the danger of occlusion of the pupil great. Mercurial treatment is most signally efficacious in curing the disease, and if recent, in procuring the complete absorption of the effused lymph. Mercurial treatment previously adopted does not prevent the occurrence of this form of iritis. The subjects, though often puny and cachectic, are also often apparently in good condition. Infants suffering from iritis almost always show one or other of the well recognized symp-

tonis of hereditary taint. Most of those who suffer are those born within a short period of the date of the primary disease in their parents. It occurs rarely in the primary, more commonly in the tertiary, and most frequently in the secondary stages of the syphilis. Fifty to sixty per cent. of all infected suffer from it. The diagnosis depends on the insidious and painless onset. If there be pain it is usually at night; a muddy aqueous humor, the existence of gummy tumors, the presence of other eye affections, and a history of chancre, skin eruptions, etc. The pupil is contracted as in other forms of iritis. The treatment consists in the early and persistent use of a solution of atropine (grs. iv, ad. ʒj). This gives rest to the iris, and by dilating it prevents central adhesions. Of mercurials he prefers hydrargyrum cum crêta in grain doses until slight tenderness of the gums is produced. Occlusion of the pupils, or iritic adhesions, may necessitate an iridectomy.—*Canada Lancet*, June, 1880.

The Dangers of Urethrotomy.—At a recent meeting of the New York Academy of Medicine, Dr. A. L. Ranney read an elaborate paper entitled, "Are the benefits derived from internal urethrotomy, as now advocated, commensurate with its dangers?" The object of the paper, the writer stated, was to question the propriety of this operation, except in certain rare conditions which are clearly recognized by all the best authorities. He quoted Sir Henry Thompson, Gross, Bunested, Ferguson, and other eminent writers, to show that it is extremely dangerous. And Erichson, Spence, Thompson, Acton, Van Buren, Samuel W. Gross, Ganley, Ashurst, and Keyes, in advocacy of the use of gradual dilatation in its place. In the latest work published on this department by Dr. Keyes, the author dwells upon the point first, that internal urethrotomy is dangerous to life; and, secondly, that it does not cure the difficulty for which it is undertaken. Dr. Ranney claimed that it was unnecessary because the same or better results could be obtained by other means; and he considered that the general resort to it as now practised, was an abuse of an operation which was justifiable only within certain narrow limits. He thinks we should seldom resort to the knife unless the stricture is resilient of traumatic origin or situated near the meatus. Never perform internal urethrotomy if the seat of stricture is more than three or four inches from the meatus. If located in the deep urethra, in case dilatation fails, divulsion or perineal section is best. Dilatation is practised in a great majority of

eases, and is followed by the best results. Internal urethrotomy is to be resorted to only when other means fail, and only when the stricture is less than three inches from the meatus. *Boston Med. and Surg. Journ.*, July, 1880.

Is Cancer Inoculable?—Dr. J. L. Sulsserott has found many indications which would lead him to answer affirmatively. Among the most prominent indications is the rapid increase of cancer. For seventy years the mortality from cancer in Philadelphia has been a little more than eleven deaths in one thousand of the mortality from all causes—apparently not a large proportion; yet the sum of the deaths from this disease during that period aggregate six thousand, or more than half the deaths from small-pox. During the five years from 1807 to 1811 the proportion of deaths from cancer to the mortality from all causes was 4.5 per thousand, while in the period from 1872 to 1876 the ratio became 16.4—an increase in sixty-five years of nearly four hundred per cent. In London, from 1845 to 1874, the rate advanced from 3.4 per ten thousand inhabitants living to 5.7 per ten thousand—an increase of seventy per cent.—*Philadelphia Med. Times.*, Sept., 1880.

Senile Obliteration of the Uterine Cervical Canal is the title of a paper read by H. F. Campbell before the American Gynæcological Society. In affixing the title he intends to convey an idea of what he considers is the essential pathology of the affection—namely, premature senile obliteration. Under the influence of senility the cervical canal becomes gradually contracted, and at last completely occluded—in some cases prematurely; that is, before the mucous membrane of the uterine cavity has ceased to secrete. The first case reported was a virgin, aged fifty-five. Senile obliteration of the cervical canal resulted in an accumulation within and distention of the uterine cavity. Upon examination, the probe was arrested just within the os externum, and no prudent degree of pressure could cause it to advance. A small tenotomy knife was carefully introduced by the side of the silver probe, and cautiously pushed for a short distance in the direction of the canal. As the knife advanced the probe was made to follow the puncture by its side. In this way the contents of the uterus, which more nearly resembled the rotten-egg effluvium than anything else, was evacuated.

He reports a second case, widely different in its history and general condition—the senile obliteration occurring in a

multipara, aged fifty-eight. An examination showed the uterus to be much enlarged, low in the pelvis, and about horizontally retroverted. After evacuation of the uterus, dilatation of the canal, and the application of a soft rubber ring pessary, her condition was greatly improved. The writer thinks the lining of the womb becomes unhealthy in consequence of the retained discharge from a healthy surface, and the senile contraction is the primary cause.—*Trans. American Gynecological Society*, 1880.

Treatment of Prolapsus Ani.—In the *New York Medical Journal* of October, 1880, we find a dissertation on the above subject extracted from the work of Dr. W. H. Van Buren. A prolapse often partakes of the nature of a rupture, a protrusion and constriction; and hence the treatment with chloroform or ether when hard to relax the sphincter, is rational. He advises against incision of the sphincter, as the healthy contractibility of the muscular fibres is the best safeguard against reproduction of the prolapse. If prolapse is recurrent, pressure applied locally over the anus should be used. This is best managed by fitting a wad of oakum, or piece of soft sponge, upon the anus as a compress; and to keep this compress in place, press the buttocks forcibly together and retain them in position by a sufficiently broad strip of adhesive plaster applied transversely across the nates. Among the remedies which assist in bringing about a permanent cure may be mentioned vegetable bitters, strychnia, iron, injections of tincture of chloride of iron, infusion of calumba, solution of the sulphate of iron (gr. viij to ʒj of water), infusion of kromeria, decoction of white-oak bark, witch-hazel or suppositories of tannic acid. To these must be conjoined care to prevent prolapse, and the bowels should be kept open. If these measures fail, then recourse to a surgical operation is left. The object of the operation is to produce a traumatism competent to cause enough plastic exudation into the meshes of the loose submucous tissue of the lower part of the rectum and anus to glue it fast to the subjacent muscular coat and external sphincter, and subsequently when organized to hold it there. The result of ligating or cauterizing internal piles, whereby the little inflammatory deposit results in a cure of the accompanying prolapse, demonstrates the utility of this operation. He cautions against too free use of the cautery, as it frequently leads to stricture. It is the abuse, and not its use, which has brought it into disrepute. He recommends the introduction of Sims' speculum, and then with

the cautery at a dull-red head, proceed to draw a line upon the mucous membrane parallel with the axis of the gut, repeat this three or more times—each time carrying the cautery from a point three inches or more above the anus slowly down through its orifice, terminating the line of eschar externally where the delicate integument covering the sphincter joins the true skin.

Alstonia Constricta—Bark of the Australian Fever Tree—Dr. A. W. Bixby, of McPherson, Kansas, has used this agent extensively during the last eighteen months, and concludes that it has a wide range of action and application, resembling, in many respects, the combined action of quinine and nux vomica. It is an antiperiodic of the highest type, giving better satisfaction than quinine or cinchonidia. It is a cerebro-spinal stimulant, and as a tonic acts positively upon the great sympathetic nerve centres, and consequently increases positively and permanently the vital forces of the entire system. In a large majority of cases of intermittent and remittent fevers, it is a superior remedy. Where quinine fails in chronic cases, alstonia often effects a cure. In typhoid, synochal and puerperal fevers, where an antiseptic and nerve tonic is demanded, it answers well. Under its influence, in one or two grain doses every two to four hours, the whole system is soon invigorated; the brain becomes clearer, the heart acts with more vigor, filling and warming the extremities with more blood; the eye scintillates with an augmented brilliancy. In short, the whole system seems endowed with new power and vigor. While it does not act as a cathartic, it increases the secretions and excretions of the intestinal canal. Where stomachic and intestinal indigestion with constipation exist, it improves digestion, slightly softens the feces, increases them in quantity, and prompts to go to stool. In recent colds or coryza, it is an excellent remedy. At the beginning of an attack it frequently proves an abortive. No less good results have been obtained with it in the treatment of acute and chronic rheumatism. The usual dose is from one-half to two grains every one to four hours; but in inveterate cases of periodicity, as much as six grains may be given. If the dose is too large, headache with nervousness will result. It may be given in the form of a powder by suspension in syrup or glycerine, or made into tincture with whiskey or brandy. This latter is a useful form in the last stage of typhoid fever.—*American Med. Journal*, Sept., 1880.

Physiological Action of Alcohol on the Circulation.—Dr. J. D. Castillo concludes, from the uniform results of fifty-odd experiments, that alcohol in small doses causes an acceleration of the pulse with increased cardiac force; that this acceleration of the pulse and the increase of the cardiac force are due to a direct stimulation of the heart; that alcohol in large doses causes an acceleration of the pulse, with diminished cardiac force, and that this is due to a direct depression of the heart; that if the dose be excessive the pulse rate is diminished from the first, or the heart may be immediately arrested, being due to a direct paralysis of the heart; that the heart is always arrested in diastole; that small doses cause a rise of the arterial pressure; that large doses cause a fall of the arterial pressure; that these changes effected in the arterial pressure are due to the action of alcohol on the heart alone—in the former case being one of stimulation, and in the latter one of depression; that alcohol in small doses is a cardiac stimulant, and in large doses a cardiac depressant.—*Philadelphia Med. Times*, Oct. 23, 1880.

Crysophanic Acid in Skin Diseases.—Unlike most remedies this agent, obtained from goa-powder and rhubarb, has, according to Dr. R. W. Taylor, of New York, a wider range of application than is claimed for it. This writer thinks it is generally used too strong. Two drachms to the ounce of menstrum is too strong; ten grains to the ounce is his average strength. A few drops of alcohol on the acid will make, when combined with the cerate or cosmoline, a smooth ointment. Care should be taken not to apply it to abraded surfaces; it should also be applied to the face and near the eyes with caution. With these precautions and the aforementioned strength, the bad effects will be few. In general, brisk inunction once or twice a day, leaving a coating of the ointment on the parts, is all that is necessary; but in some instances it is essential to apply the salve spread on lint. He would advise its use in all chronic subacute skin affections, attended with superficial infiltration, or with much epidermal proliferation. In cases of very deep infiltration, it does not act as well as other remedies. In psoriasis, lichen planus, in some of the early papular and some superficial tubercular syphilitic eruptions, its action is marvellous. The disadvantages of the ointment are its staining qualities, its tendency to produce erythema, severe œdema, and sometimes furuncles. These results are less frequent, however, as the observer becomes more familiar and skilled in its use. Its

anti pruritic properties are not well marked. Its judicious use is capable of great good, while its injudicious application is capable of harm.—*St. Louis Courier of Medicine*, October, 1880.

Hot Rectal Douche.—Dr. James R. Chadwick, of Boston, thinks in many cases the hot rectal douche is more efficient than the vaginal. He has used it in diarrhœa—whether acute or chronic—characterized by small frequent evacuations, the cause of which had seemed attributable to inflammation, or at least irritation of the mucous membrane lining the rectum and large intestine. But there is a condition, namely, pelvic inflammations of all kinds, in the treatment of which this agent has proven of incalculable value. The writer calls attention to how little of the peritoneum the vagina is in relation with, and consequently how limited must be the effect of a vaginal douche in allaying peritoneal inflammation and promoting the absorption of effusion. The rectum and large intestine are, on the other hand, known to occupy the greater part of the pelvic and lower portion of the abdominal cavities. The method of administering the hot rectal douche is as follows, and aims at securing the passage of the water in a large volume to as high a point as possible in the alimentary tract and its retention for as long a period as possible: The water is taken at as high a temperature as can be borne by the hand; the patient is placed upon her side (preferably the right) in bed; a fountain syringe, holding two quarts, is employed, suspended quite low, so that the flow of water may be slow. As soon as the patient has a sensation of a desire to defecate, or the rectum is felt by the finger in the vagina to be distended, the current of water should be arrested for a few minutes, but without withdrawing the nozzle from the anus. In this way one or two quarts of water may commonly be used without exciting peristaltic action. The patient must remain quiet for a quarter or half an hour, by which time, if not sooner, the rectum will have expelled a portion, if not all, of the water. He did not deem it wise for the patient to resist the expulsive action of the intestine, because it would thereby be excited to more violent efforts, which would counteract in a measure the beneficial action of the douche.—*Trans. Amer. Gynecological Soc., in Med. Record*, Oct., 1880.

Homatropin Hydrobromate—A New Mydriatic.—Dr. Henry S. Schell thinks this agent bids fair to be a very valuable addi-

tion to the resources of the ophthalmologist. Heretofore, in the treatment of iritis and other ocular complications, and in examination of difficulties of refraction reliance has been placed almost wholly upon atropia and duboisia. Both of these are indeed invaluable, but both, nevertheless, have some properties which often render their use inconvenient and even distressing. Atropia sulphate, for instance, when used daily for some length of time, occasionally produces a granular condition of the tarsal conjunctiva, which inflames the cornea and sadly interferes with recovery. When used to suppress the accommodation during an inquiry into the state of the refraction, the effects of a single application often lasts for ten days; and in consequence of the dilatation of the pupil and the inability to focus the eye upon near objects, the patient remains blind, so far as reading, writing or other close occupation is concerned, and subject also to the disagreeable feelings attendant upon the entrance of a flood of light into the unguarded eye. In addition to this, when a large quantity of the drug is used, the general system becomes involved and the patient suffers from constant dryness of the mouth and throat, flushing of the face, acceleration of the circulation, feelings of languor, and even from nausea and vomiting. Duboisia sulphate is more convenient for use in examinations of refraction, as its action is quicker and its effects sooner over. These last only about half as long as those of atropia. But in the use of duboisia, also, we are often obliged to employ so much locally that the patient is made to feel giddy, and sometimes to such an extent that it is unsafe to let him go into the streets alone for an hour or more.

The writer, after a series of carefully-conducted experiments with hydrobromate of homatropin, arrives at the following conclusions: Homatropin hydrobromate is not well adapted to the treatment of inflammatory or traumatic affections of the eye, on account of the conjunctival irritation it produces. It is especially adapted to the production of that temporary dilatation of the pupil and paralysis of the ciliary muscle, which is so often required in examining the condition of the refraction. The best solution to use is one containing sixteen grains to the fluid ounce of distilled water. From one to five drops of such a solution may be required to produce the desired effect, according to the strength and activity of the ciliary muscle. Under the influence of a full dose, the pupil attains its maximum dilatation in about twenty minutes. With a full dose, the accommoda-

tion begins to fail in about ten minutes, and is usually totally suppressed in a half hour, although exceptional cases may require an hour. This total suppression lasts about three hours; the accommodation then gradually recovers itself, and is fully in action again at the end of from ten to thirty hours from the time of the last instillation. The local action of the mydriatic is not accompanied by any unpleasant effects upon the general system.—*Philadelphia Med. Times*, Oct. 9, 1880.

The Uses of Tar-Water in Obstetrical and Gynæcological Practice.—Dr. J. F. Allen, of Augusta, Ga., furnishes the *Atlanta Medical and Surgical Journal* of October, 1880, an article upon this subject, and claims for Dr. L. A. Dugas, of Georgia, the credit of its general introduction into Southern surgical practice. Its antipyogenic properties have attracted considerable attention. It is made according to the United States Dispensatory, by adding one pint of wood-tar to four pints of cold water, mixing thoroughly and shaking frequently during twenty-four hours, and then filtering the infusion. Internally administered, tar-water is stimulative and diuretic in its action, and locally applied it is slightly astringent, unirritating and alterative; it is antiseptic and disinfectant, and hence antipyogenic; for, by destroying the putrefactive germs, it prevents or restrains the process of suppuration. It is especially useful in puerperal-septic diseases. It is a perfect antiseptic and disinfectant, while its odor is pleasant, or such as not to offend the most fastidious. The oily and resinous principles which it contains exert a healing action upon the genital lesions, and suppuration is prevented. The ease with which it can be obtained, and its great cheapness, places it within the reach of the poorest people. It is to be used as a vaginal wash three times a day during the lying-in period, and cloths used to protect the vulva and receive the discharges should be moistened with it. It may also be employed, should occasion demand, as a wash for the uterine cavity. The value of tar-water as a local application in the treatment of certain diseases of the vulva, vagina and bladder, and as an antiseptic and disinfectant, after operations in gynæcological surgery, is no less marked. In the horrible itching due to so many different causes, we have in tar-water a valuable remedial agent. Its use in such cases as a vaginal infection and lotion to the vulva neutralizes and renders innocuous the irritating discharges, and by its sedative and alterative action it restrains or stops the

morbid process. When the pruritis is due to skin diseases, the benefit derived from the use of tar-water is apparent from its recognized curative value in the treatment of these affections in other parts of the body. After operations in gynaecological surgery, it has been found to be equal to carbolic acid in solution as an antiseptic and disinfectant, while its greater virtue as an antipyrogenic makes it more efficacious in preventing suppuration.

Actionomcris Helianthoides.—Dr. J. G. M. Goss thinks this plant belongs to the family of the sunflower. It grows to the height of four to six feet, has a yellow bloom, and may easily be distinguished by its four wall-like edges, giving it the appearance of being square, but when these walls are rubbed off the stalk is round. The root is the part used, and is from the size of a quill to that of a knitting-needle, and has an oil, and perhaps a resin, in it giving it the taste and somewhat the smell of turpentine. It grows in Georgia and elsewhere. It is a fine diuretic, and has long been used by the people of upper Georgia in dropsy, under the name of “diabetic-weed.” They call it diabetic-weed from its active diuretic property. The writer has used it with fine effect in cases of obstinate dropsy, in chronic cystitis, in calculous affections, and in chronic inflammation of the entire urinary tract. It may be given in the form of a tincture, one or two drachms to a dose, or as an infusion in doses of ʒss to ʒj, repeated every hour. It may be tinctured in sweet spirits of nitre, ʒviij to ʒxvj of nitre.—*N. Y. Med. and Surg. Jour.*, Nov., 1880.

Effects of Long-Continued Lactation Upon the Uterus and Ovaries.—Dr. W. J. Sinclair contributes to the *Medical Times and Gazette* for September, 1880, an interesting article upon the above-mentioned subject. He cites numerous cases to draw some practical observations. He concludes :

“Lactation tends to prevent conception by its influence on the ovaries in retarding their return to the state in which ovulation is perfect. After weaning, the evolution of the ovaries becomes more rapid than it is during any period of lactation. After long-continued lactation, its sudden cessation is liable to be followed by a rapid evolution of the ovaries and uterus, giving rise to symptoms of ovarian and uterine hyperæmia. Long-continued lactation may cause super-involution of the ovaries and uterus, resulting, under favorable circumstances, in complete or partial prolapse of

the uterus. When the internal organs of generation are in a hyperæmic condition, it is generally attended with some sort of a discharge, and this is usually treated by some caustic application. If consequent upon the revulsion after lactation, caustic applications do harm, especially is this true when applied as is usual to parts already functionally too active. It should be clearly ascertained that the disease is not due to oversuckling."

Filaria Sanguinis Hominis.—Dr. H. R. Bigelow, of Washington, D. C., has for a long time been much interested in the pathology of tropical elephantiasis, and concludes, in spite of the fact that we do not find the parasite in the blood in many well-marked cases of the disease, that it may be considered one of the effects of the *filaria sanguinis hominis*. He concludes that the parent filariæ live in the lymphatics; this is proved by their young and ova being found there, even when absent from the blood. They do not live in the glands, but in the lymphatic trunks on the distal side of the glands; Lewis and Bancroft found them in tissues some distance from any gland. They are oviparous. The eggs are carried by the lymph current to the glands, and being too large to pass ($\frac{1}{500}$ x to $\frac{1}{750}$), they are arrested there till hatched. After hatching, the free embryo passes along the lymph vessels and enters the general circulation. Resting in some organ during the day, it circulates during the night, whence the mosquito abstracts it and acts as its immediate host. In certain cases the ova or embryos produce obstruction of the lymph circulation through the glands—either directly by their size, or indirectly by causing inflammation. If the obstruction be partial, varicocoele of glands and efferent lymphatics results; but by means of the anastomosis, the lymph circulation is continued, carrying the embryo with it into the blood. Lymph scrotum or chyluria, or varicose groin glands with hæmatozoa, are, therefore, the symptoms of partial obstruction of the lymphatics. If the obstruction be complete, one of two things happens. The accumulating lymph so distends the vessels that they rupture and a lymphorrhagia results, which is more or less permanent. In this case, the lymph does not quite stagnate, but being able to circulate through, in a retrograde manner, it remains fluid. The symptoms of obstruction are lymphorrhagia from the scrotum, or leg, varicose glands and filarial embryos in glands, and perhaps in discharged lymph, but none in the blood. If the lymphatics fail to rupture, there is complete stasis of lymph and excessive accumulation in the tissues on the distal

side of the glands, solidification of the glands and tissues, and elephantiasis results. The embryos are found in the blood, as none can pass the glands, and the parent worm or worms probably die, choked, so to speak, by the stagnant and organizing lymph, and their own young.—*Med. Surg. Reporter*, Sept. 26, 1880.

Book Notices, &c.

Handbook of Physical Diagnosis, Comprising the Throat, Thorax and Abdomen. By DR. PAUL GUTTMANN, Privat Dozent in Medicine, University of Berlin. Translated from the Third German Edition by ALEX. NAPIER, M. D., Fel. Fac. Phys. and Surg., Glasgow. With a Colored Plate and 89 Fine Wood Engravings. New York: Wm. Wood & Co. 1880. 8vo. Pp. 344. (From Publishers.)

The recognized authority of this book is attested by the fact that it has been translated into Italian, Russian, Spanish, French, Polish, and English. The present book (which forms one of "Wood's Series of Standard Medical Authors") is reprinted from the translation made in 1879 for the New Sydenham Society. From beginning to end, the arrangement is systematic, with the single exception that the subject of laryngoscopy forms an appendix. The first part of the work is devoted to a description of instruments used in making physical diagnosis, and instructions as how to use them—such as the thermometer, cystometer, stethometer, spirometer, etc. Then he proceeds to the modes of making examinations—such as inspection, palpation, percussion, auscultation, etc. Thence he passes on—after some remarks on such diseases as are detected by inspection, etc.—to consider the diagnosis of diseases of the thorax, arteries and veins, abdominal organs, etc. Then he takes up the examination of the urine; and as a frontispiece, he gives a colored plate showing the colors of healthy urine and of urine from diseased subjects. This book will be found to be of great service by every practitioner who will attentively consult its pages.

Bile, Jaundice, and Bilious Diseases. By J. WICKHAM LEGG, F. R. C. P., Lond., Assistant Physician to Saint Bartholomew Hospital, etc. New York: D. Appleton & Co. 1880. 8vo. Pp. xiv—719. (For sale by Mr. Carlton McCarthy, Richmond, Va.)

The author presents this book after a wonderful amount of research, and after many original experiments and observations. It is devoted, as its title indicates, to a consideration

of the secretion of bile, and to disorders which result from an interference with the bile-secretory function of the liver. The author objects to the use of the term *bilious* as an adjective to diseases; and says, that wherever he has used it in connection with the words "headache, attack and the like," he intends it to connote a gastric catarrh. The earlier chapters consider the chemistry, physical qualities, and physiology of bile, and the agents which affect its secretion. The chapter (viii) on the "Action of Drugs upon the Secretion of Bile" is a most interesting one. In regard to mercury, after a full review of what has been observed on the subject, *pro* and *con*, he thinks it hardly "possible to deny positively that the action of calomel is not accompanied by some change in its [bile] chemical composition."

It may be interesting to name the effects of certain drugs in the order in which he states them:—(1.) Those which have no apparent action upon the secretion of bile—morphia, hyoscyamus, atropia, tannic acid, dilute alcohol, bicarbonate of soda, and iodide of potassium. (2.) Those which increase the intestinal fluid, but have no action on the bile, are: Calomel, gamboge, sulphate of magnesia, sulphate of manganese, castor oil, chloride of ammonia, and menispermum. (3.) The only body, the primary action of which is known to cause a decreased secretion of bile, is acetate of lead. (4.) Those which feebly raise the secretion, are: Croton oil, senna, taraxacum, scammony, chloride of sodium, bicarbonate of potash, and jaborandi. (5.) Those which markedly increase the secretion, are: Aloes, podophyllin, rhubarb, colchicum, colocynth, jalap, ipecac, benzoates, salicylates, sulphates of soda and potash, phosphates of soda and ammonia, dilute nitro-hydrochloric acid, corrosive sublimate, muscarin, nicotine, calabar bean, euonymin, sanguinarin, iridin, leptandria, baptisin, phytolaccin, hydrastin, and juglandin.

Pretty much the remainder of the book treats of jaundice of various forms or characteristics, acute yellow atrophy of the liver, yellow fever, jaundice after poisoning by arsenic, antimony, etc.; febrile jaundice, syphilitic jaundice, icterus from snake bites, icterus gravidarum, etc., etc.

Crowded as is our space this month, we have no room for comment other than to say, that this book, so carefully prepared, so full of details on both sides of mooted questions, so logical in its deductions, so practical in its train of study, and so fully up to the times, cannot fail to be of the utmost interest to the progressive practitioner of medicine. The book is handsomely issued.

Treatise on the Practice of Medicine. By ROBERTS BARTHOLOW, M. D., LL. D., Professor of Materia Medica and General Therapeutics in Jefferson Medical College of Philadelphia; formerly Professor of the Theory and Practice of Medicine and of Clinical Medicine in the Medical College of Ohio, etc., etc. New York: D. Appleton & Co. 1880. 8vo. Pp. 853. (For sale by Mr. Carlton McCarthy, Richmond, Va.)

Dr. Bartholow is a qualified teacher of medicine, as he has been a close observer, both as to the diagnosis of diseases, and as to the application of remedies to them. With one or two unimportant exceptions, he claims to have had charge of the maladies treated of in this book, intended for the use of students and practitioners. Without the usual commencement chapters on general pathology, etc., he starts off with a consideration of special diseases, beginning with diseases of the digestive system. In his desire to be practical and to bring his book within the size of a handy volume, he omits sections on the literature of the special diseases, does not enter into discussions of open questions, records only so much of the general pathology of the diseases as may be essential, and devotes the greater part of every chapter to the diagnosis and treatment of diseases. We are glad to see that he is a believer in the benefit to be derived from remedies, properly applied. The terseness of style and the thoroughly *practical* character of the work, will commend it to every busy physician whose chief object is to know how to recognize and how to treat diseases. The addition of a good index greatly facilitates ready references to the respective chapters or subjects.

We are sorry to see that the author has had occasion to say in his "Preface:" "With one or two unimportant exceptions, I have had personal charge of the maladies treated of in this work, and have made them the subject of clinical demonstration, and *post-mortem investigation, either privately or in public lectures.*" The portion of the sentence we have italicized, we are confident the author wrote without fully weighing his words. Few authors, individually, have had opportunity to make *post-mortems* of cases of enteralgia, intestinal positive diseases, biliary calculi, simple pleuritis, coryza, epistaxis, hysteria, writers' cramp, neuralgia, singultus, varicella, roseola, dengue, hay fever, etc. Such a confession would indicate an exceptional rate of mortality, or else very peculiar opportunities for autopsies on the human subject. We cannot believe that the therapeutics recommended by Dr. Bartholow in these special disorders, and in others he describes, is so radically wrong as his statement

would indicate. We have followed his therapeutics in most of these cases, since the publication of his work on "Materia Medica and Therapeutics;" but with a very different result than that of an opportunity to obtain autopsies.

Diseases of the Pharynx, Larynx, and Trachea. By MORELL MACKENZIE, M. D., Lond., Senior Physician to the Hospital for Diseases of the Throat and Chest; Lecturer on Diseases of the Throat at the London Hospital Medical College, etc. New York: Wm. Wood & Co. 1880. 8vo Pp. 440. (For sale by Messrs. West, Johnston & Co., Richmond, Va.)

We had occasion to give a favorable notice in our November number, 1880, of the first volume of this same work, which is being re published in two volumes by another American publishing house. But in the present volume—which forms one of the incomparably cheap books of "Wood's Library of Standard Medical Authors"—we have the entire work, in advance of the issue of the second volume by the other publisher, above alluded to. While the edition now under notice is not, perhaps, so handsomely issued, it still has the advantages of being in one volume, and is also cheaper. Dr. Mackenzie has a reputation which is perhaps second to no living author in his specialty; and his book is practical. We most cordially recommend it.

Editorial.

The Richmond Medical and Surgical Society has just been organized, with the distinctive object of promoting the preparation of medical papers and the discussion of medical subjects. There is no antagonism whatever between it and the older Society—the Richmond Academy of Medicine—which has been in the past the arena of many valuable discussions, many of which have been reported for this journal. The officers-elect for the current year are Dr. Landon B. Edwards, President; Drs. John G. Skelton and M. L. James, Vice Presidents; Dr. George Ben. Johnston, Secretary; Dr. Chas. S. Brittan, Treasurer; Dr. Jas. C. Deaton, Librarian. We may confidently promise our readers some valuable papers and discussions during the year. Some of the most prominent members of Richmond profession prefer to remain as simply members of the organization, with the promise, however, to participate in discussions and to present papers during the year. This Society will be a success.

The Medical Record Visiting List.—We would invite the attention of practitioners to this "Physicians' Diary," for 1881, published by Messrs. Wm. Wood & Co., of New York, and for sale by booksellers generally. This is the first edition of this valuable "Visiting List" we have seen, if, indeed, former editions have been issued. A casual glance at its arrangement will impress its practical character upon the mind of any practitioner. It contains, in addition to the usual blank pages for entering names of patients, dates of visits, cash and credit accounts, etc., much useful information that may be required in an emergency, when the doctor has not the opportunity to return to his office to consult his more exhaustive works, such as the metric system, a comparison of the centre grade and Fahrenheit thermometric scales, duration of pregnancy table, approximate equivalents of small weights, doses of drugs used by subcutaneous injection, doses of common and rare drugs, doses of drugs suited for atomization, inhalation, etc. A calendar for 1881 is also prefixed to this edition. This list is worthy of commendation and of trial.

The Chair of Professor of Surgery in the Medical College of Virginia, we regret to announce, has been made vacant by the resignation of Dr. Hunter McGuire, whose connection with the Institution has heretofore been so influential. We are glad to announce, however, that several prominent gentlemen are candidates for the position. The Board of Visitors are to meet December 19th, 1880, for the election of a Professor of Surgery to fill the vacancy caused by the resignation of Dr. McGuire.

Wanted—a full file of the Confederate States Medical and Surgical Journal, published in Richmond. A fair price will be paid. Apply to the Editor of this journal, stating terms.

Medical "Book-Keepers."—A number of medical books have been borrowed from this office by subscribers in different sections of the country, but especially by doctors in Virginia. As the Editor cannot recall all the parties to whom he has, with pleasure, loaned many of his books, and as almost everybody who borrows a book forgets to return it, he takes the liberty of occupying this much space to request keepers of his medical books to return them. Hereafter a more systematic course will be pursued in loaning books out of this office. Some of the books have been "absent" for three or four years.

The Southwest Virginia Medical Society, we are glad to hear, is now fully organized. The following officers have been elected for the year ending October, 1880: *President*, Dr. Wm. F. Barr, of Abingdon; *Vice-Presidents*, Drs. J. M. Estill, of Tazewell C. H., H. G. Johnston, of Giles C. H., Oscar Wiley, of Salem, Roanoke Co., J. S. Tipton, of Hillsville, Carroll Co., Thomas Kernan, of Lebanon, Russell Co., and J. D. Jordan, of Newberne, Pulaski Co.; *Recording Secretary and Treasurer*, Dr. John S. Apperson, of Town House, Smyth Co.; *Corresponding Secretary*, Dr. Geo. E. Wiley, of Emory, Washington Co. The Society will meet quarterly. For the present, the place of meeting will be Marion, Smyth Co. This Society has every thing to encourage it; and knowing personally most of the officers and members, we may say that good results are to be expected from it. It is an auxiliary of the Medical Society of Virginia.

The St. Joseph Medical and Surgical Reporter is the title of a new Missouri journal, which is to be issued monthly. Each number has 32 pages; price per year, \$1. J. P. Chesney, M. D., Editor. It is to be a Western journal, "made up of Western material, for Western men, and in the interests of Western medicine." The November number has very good articles—one by Dr. A. Goslin, of Oregon, Mo., on "Hypodermic Injection of Ergotin for Chronic Enlargement of the Spleen;" one by Prof. E. A. Donelan, M. D., of St. Joseph, on "Inunction;" report of an "Obstetric Anomaly, by Dr. H. Oatman, of Riverton, Mo.; and a note favoring "*Viburnum Prunifolium* as a Preventive of Abortion," by J. H., of Kansas.

Messrs. Lindsay & Blakiston's Physicians' Visiting List for 1881 is now ready. This is the thirtieth year of its publication, which shows with what favor it has been received heretofore. But the excellence of the present edition is more decided than that of any previous one. Without occupying material space, this edition contains the metric system, the general adoption of which is simply a matter of time, since it has so many advantages over the old system, already now giving place to the new, as the young men of a few years ago are coming to the front. Besides this feature, the present edition, for the first time, contains a posological table, which is always of great service to a physician who, knowing the remedy he wishes to use, still is not certain as to the exact dose in which it should be administered. We have received

this book through Messrs. West, Johnson & Co. Each "List" has a tuck, pocket and pencil. For 25 patients weekly, the price is \$1; for 50 patients, \$1.25; for 75 patients, \$1.50; for 100 patients, \$200. Interleaved editions are about 25 cents more expensive.

Corrections.—Typographical errors are sometimes next to impossible. But in Dr. Stoakley's letter in the November No., 1880, are some errors we should correct. On page 616, 13th line from bottom, read "The calf of the leg of one would seem," &c.; page 617, line 6 from top, read "*Cruddle*," instead of "*Crudde*."

The Spermatic Truss, manufactured by the Cooper Truss Company, of Pittsburgh, Pa., is the best device we have ever seen invented or suggested for the purpose of preventing nocturnal emissions when these emissions are attended with erection of the organ. It is merely mechanical, and of little value in cases in which the power of erection is wanting. But as doctors are frequently solicited for advice by gentlemen who suffer from nocturnal emissions, accompanied by erections, we have thought it to their interest and the good of some of their patients, to call special attention to this "most simple, reasonable, and efficient" mechanical device.

Obituary Record.

Dr. Paul Broca died July 9th, in the fifty-sixth year of his age. He discovered the location of the faculty of language—in the posterior part of the third frontal convolution of the left hemisphere. He was a skilful surgeon, and his work upon aneurisms has become classical. Honors, all well deserved, were bestowed liberally upon this man. In 1867 he was appointed to the chair of "External Pathology" in the Paris School of Medicine. He founded the Society of Anthropology, and was the greatest authority in that science. Broca was a member of the French Senate. He believed thoroughly in the education of women, and one of the last works of his life is a masterly essay—unpublished at the time of his death—on the subject. In religious opinion, Broca was a thorough liberal, and unfettered thinker, working constantly and zealously for the good of his fellow man, and free from all bitterness.

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Original Communications.

ART. I.—**Acute Metritis.** By JOSEPH H. WARREN, M. D., Boston, Mass.
(Continued from page 694, December No., 1880.)

In speaking of metritis or inflammation of the uterus, I did not dwell upon either acute metritis or upon endometritis (sometimes called uterine catarrh) at such length as it would seem proper that we should in discussing these diseases, most commonly met in our every day's practice. I will therefore refer to acute metritis before we advance to the further consideration of diseases of this organ, which I have in another place called "the mother of all ills" in a vast number of women.

As this acute inflammation is often mistaken for perimetrie disease, congestion, flexion, uterine tumors, etc., from which, in accordance with the descriptions of such diseases as given at great length by various authors, it must be distinguished in our differential diagnosis, I will, in passing, give a few of the most prominent symptoms that aid us in diagnosis. If acute metritis is not complicated with perimetritis or with septic conditions, its duration is generally limited to four or six weeks; parenchymatous metritis will rarely run beyond this period, but will usually end in resolution. In patients

of strumous diathesis, who have neglected proper treatment and who have been without proper rest and care during the early stages of the attack, the acute may run into the chronic form, or the inflammation may extend to the surrounding parts. I may refer to this when speaking of pelvic peritonitis, or pelvic cellulitis further on. The difference between the form of acute metritis under discussion, and that of puerperal metritis or inflammation, is, that in the latter we have the disease arising from poisonous and foul matter by infection conveyed in the veins or lymphatics from the interior of uterus. This may be general or limited to the part of the organ where the placenta is attached, and the duration of this form of acute metritis is of a short and limited period. We may also see acute metritis following injury of the uterus, that form which is particularly active and very limited in duration, arising from the rough handling and usages of the abortionist, just as if our Heavenly Father had designed it as a punishment for, and detection of their crime. We again frequently see this disease, acute inflammation, resulting from operations in scraping the uterine cavity for fungosities, removing tumors, use of sponge tent, intra-uterine pessaries, operation for lacerated cervix, etc.

When metritis becomes complicated, it may involve the ovaries and broad ligaments, and become pelvic peritonitis, perimetric phlegmonous lymphangitis, phlegmasia dolens. These all may arise from a cold, from suppressed menstruation, tumors, cancerous and tuberculous affections, and from sudden shocks to the nervous system by sea-bathing, accidents, railroad injuries, etc. In the treatment of acute metritis, we should pursue the most mild antiphlogistic method in the early stages. Disinfectants, such as a solution of chloride of zinc—one part to thirty of warm water, or carbolic acid, ten to thirty per cent. in glycerine, with one or two grains of sulphate of morphia to each quart of water, are called for in all puerperal diseases, and wherever septic poisons are introduced. Flax-seed tea will also be found very useful and soothing. Sponge-piolin, wet in hot water having half drachm or more of the fluid extract of belladonna to enough hot water to thoroughly wet it, to which tinctura

opii may be added, if the pain is very acute and distressing, may be applied to the abdomen with benefit. A dozen leeches, or more, applied just above the pubes will often give great relief. A suppository of belladonna, hydrated chloral, morphine made with cocoa butter, may be inserted after each injection of the above named mixture. This, with rest in bed, and the administration of the following internal remedies will generally be found very efficacious in relieving the first acute and engorged state of acute metritis:

R \acute{y} . Chloral hydrat.....5iij
 Chloral croton.....gr. xxx
 Liq. opii comp.....5vj
 Glycerin.....5ij
 Syr. tolu.....5j

M. Sig.—A teaspoonful every hour until ease from pain and sleep be induced. If vomiting occurs, which is almost always an accompaniment, I would add to the above mixture in place of the croton chloral, bromide of potassium, and a solution of sulphate of morphia for the liquor opii compositus. Should the patient reject everything by the stomach, I would throw up into the rectum an enema of starch-water and a drachm of tincture of opium. This, with the exclusion of all noise and excitement, will be in accordance with my experience, the best treatment for the first twenty-four or forty-eight hours. After this, if the stomach will tolerate it, I would give opium and hydrargyrum chloridium mite—half grain of opium and two of calomel—once in four or five hours. I would follow this after one day with by-sulphate of quinia, in two to five grain doses. If the patient will not bear opium, I would give extract of hyoscyamus—hyoscyamus and camphor, with or without the chloral. Bromide of ammonium, ten grains to the drachm in hot water, is also very useful in these cases.

If this disease is of a puerperal origin, pilocarpin muriate is highly praised by some. Bearing in mind the septic origin, we should push the quinine very early, and disinfect the parts with the above named injections frequently; or we may use almost any of the disinfectants in ordinary use, such as the permanganate of potash, solution of chloride of soda,

or the phenol soda solution, which are all very good for this purpose. If none of these disinfectants can, for any reason, be had, tar-water with borax or borate of soda will be found very agreeable to the parts of the patient, and be, by no means, a despicable disinfectant. Blue clay, with sulphate of iron—one of iron to ten of clay, to a sufficient quantity of water and a few drops of glycerin, sufficient to soften the pulverized sulphate of iron and clay—will be found to answer the same purpose. It also makes a very useful dressing in deep burns or ulcers of any part of the body. It is very soothing, and burns and ulcers heal very rapidly under a covering or plaster of it. In addition to the remedies above suggested, an application of an evaporating mixture after the acute pain has somewhat subsided, can be made to the bowels with great advantage—cologne water, tincture of camphor, tincture of opium with chloric ether or chloroform. I esteem the value of these latter agents to be chiefly in their external use in medications with a very few exceptions in various diseases. Since sulphuric ether is so much more safe in its action, it should take the place of chloroform in every case where an anæsthetic is needed; in fact, it would be criminal for one to use the latter. About twenty-five years ago, I was once so frightened from giving an old woman chloroform, that if I had been as black as the Ethiopian, I should have turned as white as death on a pale horse. *Oleum terbinthinæ* with camphorated oil, and *tinctura saponis compositus* is a very active and useful application to the abdomen. Pounded ice in a bladder or rubber bag, covered over with a dry flannel or towel, is also very good, particularly if the inflammation has extended to the ovaries and ligaments, or if cystitis sets in to further complicate the case. Scarifying the cervix and os with a long handled cook's knife will give vent to the engorgement and swelling, and greatly relieve the dry, hot and tense surface of the uterine neck; also leeches to the os and cervix if no septicæmia is present. The bowels should not for the first six or eight days be moved, except by injections up the rectum to remove all collection of hardened fecal matter that, having lodged there, may act as a source of irritation. By giving patients

suffering from this disorder all the best possible hygienic surroundings, such as pure air, bathing, good nourishing food, iron and quinine tonics, we may hope, in a large majority of cases of acute metritis, to arrive at a most favorable result. We should guard our patient as much as possible against allowing the case to run into chronic metritis, which we have written upon in our former paper, somewhat generally. We sometimes have so abundant an amount of lymph poured forth that the uterus is bound down by many attachments and plastic lymph adhesions to various parts of the vagina and its surrounding parts. It is not best to disturb these attachments too early in acute forms of metric inflammation, as by so doing we may set up an inflammatory action, which will result in the formation of abscesses, and extensive and exhaustive suppuration, or an ulcerative process about the vaginal portion of the uterus. Ulceration, indeed, may follow any acute attack of metric inflammation, leaving excessive granulations, fungoid growths, enormous increase of size, Nabothian glands, hypertrophy or hyperæmia of vaginal vessels, which may pass into uterine catarrh or endometritis. This may be followed by exudations of a croupous chronic metritis, endometritis, cystic formation, or stroma mingled with a gelatinous mucous fluid into sacs, which finally appear as vesicular polypi at the os externum. These may be of a reddish-brown color, and frequently contain glutinous material, cholesterine or even pus. This stage of uterine diseases will, in addition to what I have indicated, require most vigorous tonic treatment, combined with internal uterine medications, such as an ointment of the nitrate of mercury, combined with cocoa butter or cosmoline. If great degeneration of the tissues has followed with a malignant or cancerous appearance, we may use with good result the chloride of zinc and blood-root added, in some convenient vehicle, to cosmoline or vaseline. My formula, if there is much odor and a bloody thick unhealthy discharge from the cervix and os is—

R̄. Chloride of zinc.....gr. x
 Pulv. sangnaria canadensis.....gr. xv
 Cosmoline.....5j

M. Sig.—Apply with syringe through curved canula.

If the degeneration is mostly near the os externum, I make a suppository of the same drugs, using cocoa butter in place of the cosmoline, pass the suppository into the vagina, and surround it with a small quantity of cotton-wool, so as to hold it up to the diseased parts. Never use perchloride of iron; this is a filthy, poor kind of an application to make either internally or externally to the uterus. Should we have a greenish black turbid puriform secretion following the inflammation, sulphate of zinc with alum, run into sticks, will be of advantage in strengthening the softened and diseased tissue. These sticks should be one-quarter of an inch in circumference, and about one inch in length; they can be passed up with the dressing forceps, and packed in by a pessary of cotton-wool as above mentioned. Iodide of potash with pulverized sulphur, run into sticks as above, will be useful and handy, particularly if we think the disease is of a tuberculous variety, or in serous uterine catarrh, which is a form not always easily cured. The iodine and carbolic acid mixture of Battey will meet these cases very amply. I never think much of intra-uterine injections of any kind. I have a great fear of them, and would not advise their use, and, in fact, everything can be accomplished with fluids which can be accomplished by solid medicants for the uterine cavity. Should we ever wish to use injections, it would not be safe unless we first dilate the inner as well as outer mouth; and even then the internal os would admit a bit of cotton or brush dipped into any medicant we might wish to apply. Their use is always attended with danger.

In menorrhagia or excessive flowing we need not use them, as we can always arrest this by the hot water or medicants that I have indicated.

Before closing up this part of my article, I would add that a very small quantity of powdered starch mixed with tannic acid, blown into the uterus in severe hæmorrhages, will work very well. This can be blown through a catheter or any canula. For a very old chronic catarrh, after the menopause or change of life, one-half grain of corrosive sublimate to 3ss acid salicylic, will be found to effect a cure by blowing in, every two or three days, one or two grains of this mixture.

Before applying this, we should first wash out the vaginal parts with a cold water injection, or strong suds of bar or soft soap. These old women that are affected with this old catarrhal dribbling, and with it more or less pruritus or intense itching of the vagina and vulva, are greatly benefited by bathing the parts in strong lime water, with a little acid carbolic mixture in it. The lime water should be of officinal strength at first, and if this is not effective, gradually increased, till the desired result is attained, or lac. sulphur and aqu. camphor may be used. None of the applications that I have before indicated for various forms of inflammation seem to do any good for this chronic catarrh of old ladies; but we can always or most always succeed with the applications I have just above indicated. Too powerful caustic or other applications to the uterus are not safe, nor are they tolerated—severe ulceration, degenerating into sloughing ulcers, being likely to follow their use.

Lime water and aloes are useful in the ascarides of the aged and young children. Often the secretion from the anus will cause a severe prurigo of the vagina and *mous veneris* of both little girls and the more elderly ones. An injection of this should be used at night, both up the rectum and vagina—in the old girls particularly. A tablespoonful of this, taken for adults internally, without the acid carbolic in case of ascarides and constipation, will work very well. The formula I recommend is one-quarter part of tincture of aloes to three parts of officinal lime water for internal use by the mouth.

R_x. Aloes.....5j
 Aq. callis.....5iij

[TO BE CONTINUED.]

A Successful Case of Transfusion of Blood is reported to the August No., 1880, of the *New York Medical and Surgical Journal*, by Prof. Joseph W. Howe, M. D., of New York. Colin's instrument was used, and saved a lady in childbirth from impending death due to excessive hæmorrhage.

ART. II.—**The Study of Special Nerve Centres***. By JOHN J. CALDWELL, M. D., Baltimore, Md.; Member of the American Medical Association; of the Medical and Chirurgical Faculty of Maryland; the Electro-Therapeutical Society, N. Y.; Honorary Member of the Gynæcological Society, Boston, Mass.; Honorary Fellow Abingdon Academy of Medicine, Abingdon, Va., etc.

Science is the summary of facts; it is therefore the rule of art. To act intelligently we must understand the principles which underlie the purpose we seek to accomplish. Theories are necessary because they are the expression of facts; they not only afford foundation for present action, but a basis for future investigation. Theories are useful, although we may be unable to demonstrate their truth; thus, the atomic theory of the constitution of matter forms the basis of the physical science of the present day, although an atom of matter has never yet been isolated. The existence of molecules is deduced as a corollary from the atomic theory. The same remarks apply to the wave theory of light, which serves to explain the phenomena of optics; yet, the existence of an elastic ether, whose motion results in the manifestation of vision is simply a deduction from observed phenomena.

Physiological facts form as correct a basis for theory as anatomical facts. Thus we are as justified in declaring a certain distribution of nerves to exist from a physiological fact, as if we could trace the fibre, scalpel in hand and microscope to eye. Thus was the excito-motory system of nerves delineated. By a process of speculation and verification by experiment, we establish the existence of nerve centres, which preside over special functions. The speculations of Galt, Spurzheira and Lavautier were of this nature, when they proposed to delineate character by the existence of a particular cerebral conformation, or organs, which, at this time, we would call cerebral centres, or by the existence of certain lines of expression of the human organism. The volume is before us; we need a commentator. Speculative

*This paper was contributed to the Medical Society of Virginia during its recent session in Danville, (October 20, 1880). The Publishing Committee referred it back to the author with the suggestion that he publish it in some medical journal of his selection. The author has contributed it to the *Virginia Medical Monthly*.—EDITOR.

philosophy has been superseded; it has, however, performed a grand role in the history of science. In fact, it was the parent of the philosophy of the present day. The speculative theories of Lewcippus, Democritus and Epicureus, form the basis of the philosophy of the nineteenth century; for not only is the atomic theory the philosophy of chemistry, but also the corner stone of the philosophy of life. The Cartesian philosophy fell before the "Essay on the Human Understanding." But Locke's reign was of short duration; for the views of Descartes are again received as the basis of material science.

In medicine, as a science, we must recognize the fact that function depends upon organization, and that the phenomena of life depends upon the correllation of the different organs which make up the complex structure of the human economy. The sick man no longer repairs to the shrine of his patron Saint, but seeks the advice of the learned and skillful physician. John Tyndall tersely says, "Thought has its correlative in the physics of the brain." So have other functions their correlatives in the physics of the spinal marrow and sympathetic centres—all beautifully harmonized by structure, and operated by force. Tyndall's opinion is the result of phenomena which showed thought to be connected with the brain; that derangement of brain structure was accompanied by perversion of intelligence, or the loss of intellect. So general a conclusion may satisfy the scientific materialist, but not the physiologist, whose office it is to discover facts and propound theories which shall be a guide to practice. When practice of medicine ceases to be guided by science, it degenerates into empiricism. Physiologists have shown that thought is not alone dependent upon the physics of the brain, but that the brain is only a part of the structure necessary to intelligence. Thus the spinal marrow and sympathetic system, and the nerves of special senses are all elements in the structure of the apparatus concerned in intelligence. Man would be but an indifferent animal deprived of the power of speech.

In truth, the harmony of action and inter-dependence of every part of the human organism is wonderful. The anatomo-

mist and physiologist have furnished us the reason of this harmony, by demonstrating anatomical connections, in part shown to the eye, and partly by the deductions derived from experiments and pathological phenomena. The intricacies of these relations, and the special functions of each nervous organ, when unraveled and demonstrated, will constitute the physiology of the nervous system.

The association of different parts of the economy is strikingly shown by the anatomical distribution and functions of the pneumogastric—so aptly termed the “vagus” nerve. I have elsewhere termed it the grand life nerve, the great mainspring of vitality, through whose broad distribution to, and complex relations with, numerous structures, our very being is perpetuated. Some have styled it the regulating medium between parts of the human economy. Its infinite ramifications and distributions serve to bring into harmonious relation parts which otherwise would be isolated, as well as to convey power or force to so many organs, to contribute to the healthy performance of their functions.

Yet, the pneumogastric nerve constitutes but a single organ, whose office is to provide force to work the complex structure to which it is distributed. “Force” is but motion; this motion originates in the pneumogastric nerve centre. When we reflect that this nerve is distributed to so many organs whose functions vary—secretory, excretory, physical, physiological—we are brought to the conclusion that the branches of this nerve are only carriers to and from a centre which afford the power, the force or motion.

That different nerves perform special functions is evident from the regularity with which they are distributed. Singular distribution of arteries is unimportant, because all carry the same kind of blood; nor does it matter what veins return the blood to the heart and lungs; hence irregularity of the circulatory apparatus is not unusual. On the other hand, the loss of a nerve would entail the loss of a faculty, because it would entail the loss of connection with a centre of force essential to the function of the organ to which it should have been distributed. Nerve power is, then, but a peculiar kind of force or motion; and different nerve centres

originate different kinds of motion, manifested by different phenomenon—alike the different kinds of motion to which we give the name of heat, light, electricity—like the phenomena of sight, hearing, taste, smell, which are the result of different kinds of motion.

A learned lecturer at the Peabody Institute, Baltimore (Prof. Jeffreys, of Boston), in discussing color blindness, said that the eye contains different parts adapted to different colors; that there are two properties in the eye—one, the power to distinguish form; the other, of distinguishing color. But the eye does not form the color; it simply transmits. In fact, we feel, hear and see with the brain, or certain cerebral centres of nerve power. Many color-blind persons may be educated to distinguish colors. As white light is the result of motion, so are the prismatic colors. If the eye, or any part of the optic apparatus, be unable to transmit green motion, the individual will be green blind, or the optic centres may be at fault.

Anatomy, physiology, and pathology combine to show that there are certain nerve centres, or centres of force, which preside over, so to speak, certain functions. Thus we have double and triple sets of nerves given to one organ; intricate connections are formed among nerves, distribution of different kinds of nerve matter; and, finally, peculiarity of arrangement. Whence the necessity of double and triple sets of nerves, if all convey the same power from a common source? Whence the use of diversity of nerve tissue, and arrangement into ganglia and the like, if there is no difference in the kind of power generated and transmitted? The fact that sensory and motor nerves exist, has long been recognized; the experiments of Ludwig are regarded as establishing the existence of secretory nerves—I should prefer to say of nerve centres which furnish the “force” to set in motion the secretory organs. Galt noticed that irritation of a nerve increases the *secretion of sweat*. But it appears that there are certain sweat centres in the spinal cord. Lücksinger locates sweat centres in the spinal cord of the lumbar and lower part of the dorsal regions. Physical acts, as fear, produce sweating; heat is another agent which causes sweating,

and, lastly, certain medicinal agents increase the secretion. Thus, according to Lüchsing and Nawrocki, a dose of pilocarpin causes the feet to sweat. The former believes that the drug acts centrally in addition to its peripheral action; according to some, sweating follows an irritation in a reflex manner. The investigations of Prof. Isaac Ott, M. D., on this subject are highly important; he concludes, "that sweat centres, like the vaso-motor centres, are situated throughout the cord and medulla oblongata; for when the latter is irritated, an abundant secretion of sweat occurs in all the extremities." It appears that certain agents serve to check sweating, which act upon the inhibitory mechanism, the centres of which are supposed to lie in the medulla oblongata. Thus is the opinion strengthened that certain functions are presided over by particular nerve centres, and, by reference to physiological facts, their location is approximately determined.

That *dilatation of blood vessels* is due to the influence of certain nerves, is the opinion of many physiologists; and, further, that these nerves rise from particular centres in the spinal cord, called vaso-dilator centres. Heat is supposed to act directly on the vaso-dilators.

Thus we have sensory, motor, vaso-motor, vaso-dilator, sweat centres, and inhibitory centres. In addition we have vagino-spinal, ano-spinal, and vesico-spinal centres, which preside over the special functions of these organs.

Let us turn to the brain. "Thought has its correlative in the physics of the brain." The typography of the brain exhibits diversity of appearance—convolutions, ventricles, eminences, commissures, connecting the two brains; nervous tracks and vascular supply. Its molecular structure varies into gray matter and medullary matter. It is connected or joined to the spinal cord—as it were, prolonged *into* the spinal cavity. Not unnaturally the ancient sages, from Galen to the period of Sir Charles Bell—the father of nervous physiology—maintained that the brain presides over the body through the spinal marrow and nerves, by means of a fluid transmitted by tubular nerves. Through this agency all the phenomena of life are carried on. The presidency of the

brain as a co-ordinate branch of the animal government, must be admitted, but we must become more intimately acquainted with its executive powers and its limitations. Its control over many spinal functions is apparent, and this has been termed "inhibitory." This power we are justified in referring to "inhibitory" cerebral centres. The power of exciting into action spinal centres is manifested by the effect of amorous thoughts, which may be direct and reflex; the effects of the emotions of fear, anger, despondency and the like, on the spinal nerve centres is recognized by all. Fear may cause increase of action of sweat centres and of those which preside over the sphincters, causing them to relax. On the other hand, it may diminish or alter secretions, as of the salivary and mammary glands, all of which we are authorized to refer to their connection with certain cerebral centres. Pathology has shown that the faculty of speech is connected with the integrity of certain convolutions of the cerebral nerve-centres, which preside over the function of speech, affording the "power" or "force" which sets in action the physical vocal apparatus.

The wonderful faculty of memory, "the warden of the brain," is intimately connected with the faculty of speech. This faculty is set in action by being excited centrally, and by reflex action, and is doubtless dependent upon particular nerve centres. The loss of memory from disease of brain, pressure, accident, and the like, is familiar to every one. The relation between memory and speech is illustrated by the curious inversion of letters in certain words. A medical friend related to me an example of the result of cerebral apoplexy in which the person always said "*was*" for "*saw*," and the converse, and gave other examples not at present remembered. The effect of alcoholic drinks in stimulating memory and exciting speech, is familiar to most persons. In large quantities it obtunds this faculty.

Memory excites speech; here the action is central. Speech excites memory; here the action is reflex. Caution is inhibitory of speech, *i. e.*, inhibitory brain centres control speech. Our special senses—sight, hearing, smell, taste, touch—must be referred to special centres; in fact, we hear, smell, taste

and feel with the brain centres of these senses. Sonorous bodies cause motion; the effect is sound. Luminous bodies cause motion; the effect is light. A blow on the eye causes a flash of light. Touch excites motion, and we feel. Sapid bodies excite motion, odoriferous particles excite motion, and we taste and smell. Color-blindness is similar to anæsthesia; odoriferous particles cannot be recognized by all persons; mignonette, so delightful to some, is odorless to others. The same remark applies to taste—nothing so capricious as taste.

A curious faculty of the mind is that of pondering a proposition, by the exercise of which faculty, that which is obscure and perplexing, becomes luminous and explicable. The different powers which constitute the mind are brought into play; we say the various faculties of the mind are brought to bear—a correct expression, if by faculties we mean cerebral organs or centres of power. It likewise shows the intimate relation and anatomical connection of them all, which we call correlation.

Dr. Ott has performed some interesting experiments showing the effect of certain agents in causing retrograde movements in pigeons. These were caused by the action of cold on the skin on the back of the neck; the movements alternated with fits of stupor, hypnotism, etc. When bi-sulphide of carbon is applied, birds run forward, but suddenly commence to run backwards, and against the will, as they seek to overcome the tendency. Irritation of the nerves of the skin on the back of the neck caused similar retrograde movements, followed by a period of quietude. These phenomena he regards as reflex in their nature. Here the mechanical irritation of the sensory nerves is reflected on the central nervous system, causing it to involve the phenomena under consideration.

These phenomena occurred after the destruction of the cerebrum. He says when the cerebrum is destroyed, the nervous system of the bird is a mere automaton, played upon by appropriate external agents. These phenomena are attributed to effects on the ganglia or nerve centres at the base of the encephalon. The forward movement was due to cerebral activity—special functions presided over by special nerve

centres. The phenomena of hypnotism are caused by ganglia at the base of the brain, inhibiting the "*will*." In cats and rabbits, the application of bi-sulphide of carbon to the skin on the back of the neck caused them to run forward and leap up into the air.

The above experiments not only show the existence of special nerve centres, endowed with peculiar functions; but also that certain agents have the power to act on special nerve centres. This is important in a therapeutical point of view, for having determined the existence of centres of special function, and agents of specific action, we have a basis for the practice of medicine. Thus is science shown to be a guide to practice—the rule of art.

Pathology and therapeutics combined to strengthen the view in regard to specific nerve centres endowed with specific powers. The terrible syphilitic headache disappears on the administration of iodide of potassium. The relation of lesions of the cord, or of certain spinal nerves to epilepsy, has been pointed out by Brown Sequard (an epilepto-genic zone). Others place the pathology in the medulla oblongata. All are searching for particular nerve centres. Many cases are cured by bromide of potassium, which acts upon the central nervous system, diminishing motor power and sensory perception. Tetanus is a motor spinal neurosis. Strychnine acts upon motor functions, increasing their sensibility. Hydrophobia is a cerebro-spinal neurosis—a toxic neurosis. Woorara kills by paralyzing the motor nerves concerned in respiratory movements. Gelsemina paralyzes the respiratory centres. Secretion is presided over by certain nerve centres. Atropia causes dryness of the throat by paralyzing secretory nerves, which can be restored by calabar bean. Jaborandi increases the salivary secretion, and acts also on sweat centres. The cerebellum is thought to be the co-ordinating centre of voluntary movement. Alcohol affects the cerebellum and produces want of co-ordination.

It is useless, however, to add to the number of pathological and therapeutical illustrations of specific nerve centres controlling special functions of the animal organism.

ART. III.—**New Processes and New Instruments in Minor Surgery—Incisions and Needles.*** By GREENSVILLE DOWELL, M. D., Galveston, Texas, Professor of Surgery in Texas Medical College Hospital, etc.


INCISIONS.—It would seem to be a work of supererogation to review these *simple* and, as believed, these *minor things*; but experience has taught me, that no part of surgery has greater defects, and needs more reform than this.

I hold and teach that all T, L, H, X and + incisions should be abandoned—are not necessary—always make bad sores, and are hard to coaptate. They can all be substituted by (, O, I and U incisions; all incisions should be made in the line of the circulation of both arteries and veins, and parallel with them and the nerves. No artery, vein or nerve should be cut when it can be avoided in the removal of tumors, ligation of arteries, or resections of bones. I have often demonstrated that these operations can be done well and easy by avoiding the arteries, veins and nerves. The flaps should always retain the arterial trunk, and be left in the centre when it can be done. We meet with but few cases where this cannot be done, being alone, and in old fistulous opening and traumatic injuries where there is a necessity for extending the original openings. I ask surgeons to think of these matters and see if they are not founded in truth.

Needles should never be made with a straight body and a half curve point, for any purpose or of any size. They cannot be easily held by the fingers, or even in needle-holders, so firmly as to prevent them from turning and going in the opposite direction from that desired. I have pressed upon them so hard as to break the eye, and yet they would turn. For this reason, I have discarded them, and think they should never be used, and their manufacture should be discontinued. In all cases they can be substituted by curved needles, the

*This paper, a part of which is here published, and is to be continued, was presented to the Medical Society of Virginia at its session in Danville, Va., and was referred to the Publishing Committee. The Committee directed the paper to be returned to the author, with the suggestion to publish it in some regular medical journal of his own selection. Dr. Dowell has kindly contributed the paper to the *Virginia Medical Monthly*—EDITOR.

curved needles made of a continuous curve, whether slightly or greatly curved like the needle figured further on. Continuously curved needles can easily be held either by the fingers or the different kinds of needle-holders, and has no tendency to turn in, being pushed through the soft tissues of the body.

The points of all needles made for sewing flesh should be made flat, spear-pointed or triangular shaped, with three cutting edges. These will penetrate the flesh easily; but when made round-pointed, such as those for sewing cloth, it is very difficult to push them through even the skin. The eye should be large, and the eye-end flattened or ground. It is useful to have made some eye-threaders, and others, double spear-pointed, with an eye in each end—one eye made to be threaded after insertion, as in my hernia needle, or which I prefer to call “*shuttle*  *needle*,” being made 4 to 6 inches in length, and with variable curves; and center as is a double-barrel gun to prevent it from bending or breaking, and to give space for the thread to pass more easily. All surgeons need needles from a half of an inch to six inches in length, and of proportional size.

I have used the shuttle needle for many purposes and find it the best, the most convenient and easily managed for putting in the ligatures for the radical cure of hernia, or for closing the wound after the operation for the relief of a strangulated hernia. It enables the operator to inclose the peritoneum and thereby often affect a radical cure. I have also used it in operations for lacerated perinei, by the simple interrupted suture with silver wire; in putting in the ligatures after the removal of an ovarian tumor, whether using the interrupted or quill suture; in sewing the cadaver after a post-mortem; in ligating hæmorrhoids; in tying the temporal arteries as I have done without an incision for the cure of epilepsy; in ligating varicoceles, varicose veins, etc. In ligating varicoceles and varicose veins, I prefer the shuttle to be straight.

I also used the straight-shuttle needle for acupressure,

with or without silver wire, and the eye-threader ends will be found useful in these cases.

Some needles should have movable points for the ligation of deep-seated arterics, and where the body of the needle is left in tact during union. In ligating deep-seated arteries, the curved shuttle needle, with a dull point will be found the best, as it is easily pulled through and is not half so tedious as the unscrewing of the point in the usual process.

ART. IV.—**Pelvic Cellulitis.*** By HUGH M. TAYLOR, M. D., Demonstrator of Anatomy, etc., Medical College of Virginia, etc., Richmond, Va.

I suggested the subject of pelvic cellulitis for discussion, not because I have had great experience in dealing with it, but rather because I have been impressed with its importance, and with the belief that it is much more common, and its consequences much more serious than are generally supposed.

The terms pelvic cellulitis and pelvic peritonitis are sufficiently accurate, very suggestive, and clearly define the first to be inflammation of the pelvic cellular or connective tissue; and the latter, inflammation of the pelvic peritoneum.

From the days of Hippocrates and Galen down to the middle of the present century, we find reports of cases of pelvic abscesses; but we find little to impress us with a belief that the early practitioners associated in any way these abscesses with pelvic cellulitis. From the middle of the present century, a steady advance has been made in the due appreciation of this disease. At the present time, it is claiming the attention of the greatest minds in our profession, and its closer study has thrown more light upon the pathological condition of many uterine and ovarian diseases. The line of demarcation between pelvic cellulitis and pelvic peritonitis is now not so distinctly drawn, inasmuch as it is thought that they are directly or indirectly dependent upon similar causes, present, in a great measure, similar symptoms, require almost the same treatment, and are so often sub-

*Read before the Richmond Medical and Surgical Society, December 14th, 1880.

merged one into the other as to be practically indistinguishable. The contiguity of the structures renders it difficult to understand how we can have an inflammation of one without some extension to the other. What we will have to say then of one may be considered as applicable to the other.

In order to appreciate the abuse of this cellular tissue, it is necessary to have a clear idea of its situation and use. We find it connecting the uterus and bladder, uterus and vagina, vagina and rectum and the vagina and bladder. It is found connecting the pelvic peritoneum to the pelvic organs and floor of the pelvis and to the transversalis fascia. It is found connecting the pelvic fascia to the parts beneath, and it is found between the folds of the peritoneal pelvic ligaments. It serves as connective tissue between these structures; it serves as bumpers between the movable pelvic and abdominal organs, and also as an adaptable medium through which the numerous blood vessels pass in their passage to and from the pelvic organs.

Regarding the causes of this disease there is a diversity of opinion. Priestly writes: "When inflammation attacks the cellular tissue in the neighborhood of the uterus, it is generally by extension from some portion of the generative apparatus." Schroöder thinks it is rare except in the puerperal state, and that it is invariably the result of a resorption of septic matter during the puerperal state, or following some operation upon the cervix or vagina. Thomas cites as causes, first, parturition or abortion; second, inflammation of the uterus or ovaries; and third, direct injury from coition, caustics, pessaries, operations or blows. Emmet classifies the causes as puerperal and accidental. He is deeply impressed with the belief that future observation will establish the fact that phlebitis is a common factor in pelvic cellular inflammation. Extra-uterine pregnancy, rupture of cysts, of blood vessels and the escape of any foreign body into the peritoneal cavity, are all capable of producing pelvic peritonitis and general pelvic cellulitis. Displacements of the uterus form over fifty-four per cent. of the lesions found to be accompanied with cellulitis. The next most important accompaniment is laceration of the cervix, which, by ex-

tending into the connective tissue of the pelvis during childbirth, readily produce cellulitis. The more frequent occurrence of cellulitis on the left side is particularly remarkable. Of 157 cases of uncomplicated cellulitis reported by Emmet, forty-one per cent. occurred on the left side, and only ten per cent. occurred on the right side. The use of the sewing machine, especially when used soon after or before the puerperal state, or before or during or after the catamenial period, is recognized as a very frequent cause of this disease. Priestly, Schroöder and Thomas think cellulitis a secondary disease, due, in a large majority of cases, to uterine or ovarian disease.

Emmet takes strong grounds against these views, and is convinced that while the primary cause of disease lies, through the influence of the sympathetic system, in impaired nutrition, we must look to pathological changes in the connective tissue as the cause of the results we now regard as the original disease in the uterus and ovaries. These views have no reference to the lesions incident to the puerperal state; for there he recognizes that, for the time being, the uterus is the dominant power. Pathological changes are then brought about in the connective tissue of the pelvis as secondary to the uterine condition, and may remain long after the original causes have disappeared. But these pathological changes may afterwards so far affect the circulation, either mechanically or through the nervous system, as to excite, in time, other uterine disease. He calls attention to the fact that in no other portion of the body, within the same extent of space, can be found the same number of blood vessels or nerves, as are distributed to the pelvic connective tissue. These vessels are doubled upon themselves to an almost incredible degree; so that they cannot be put on the stretch, nor their calibre lessened by the traction from pregnancy or uterine displacement. This provision is, however, a source of weakness, should local nutrition become impaired, since a great portion of the blood contained in a woman's body may become almost stagnant in the vessels of the pelvis. The circulation in a portion of the cellular tissue may become obstructed from some cause, with the effect

of producing congestive hypertrophy of the uterus from partial stagnation. One of the first efforts of nature would be to temporarily relieve this condition by an increase of secretion from the mucous follicles. As this discharge continued to flow over a surface, the epithelium would at length be lost, and what has hitherto been termed ulceration would be produced. It has been the accepted practice, even to the present time, of applying caustic remedies to such a surface, until the character of the tissue became destroyed, when, of course, the discharge would cease, with the original condition in the connective tissue remaining the same. Emmet holds it to be far more rational to restore, first, the circulation in the cellular tissue, after which the hypertrophy of the uterus will rapidly diminish, the discharge will cease and the so-called ulcerations will heal without further care. The uterus is entirely dependent on the blood, which is first distributed through the connective tissue; and its nerve fibres reach the organ by the same route. He holds that the cellular tissue is the first and most exposed to influences exerted through the sympathetic system and blood vessels, and, consequently, it is the more liable to become inflamed; just as, for instance, he who transports nitro-glycerin is more exposed to danger than he who receives it.

Just here it occurs to me that constipation and bad rectal hygiene must be a frequent cause of cellulitis, as it is of ischio-rectal abscesses. The rectum is surrounded by this cellular tissue, and only a thin wall of mucous tissue is intervening. I have not seen this condition mentioned as a cause, but it seems to me to be very probable.

Regarding the pathological condition of cellulitis, I think there is more concordance of opinion. Cellulitis is a recognized inflammation of the cellular tissue, resulting in congestion, effusion of serum, effusion of lymph and in the formation of abscesses. Of course, resolution may occur in the first stage and no lymph be effused, or the lymph may become organized or be absorbed, and not degenerate into pus. If the disease is aborted in the first stage of inflammatory action, its consequences are slight; but not so if the second or third stages are reached. The lymph, during the process of

organizing, forms bands which bind the uterus and other pelvic organs into every conceivable shape. It involves the Fallopian tubes, and often produces stricture of that duct and becomes a cause of sterility; or it may bind the fimbriated extremities out of place, and prevent the entrance of ovum; it may be deposited around the ovaries and prevent the escape of the Graaffian follicles; it may constrict the ovaries and produce atrophy of the gland. Not only that, but the nerve-fibres in the ovaries are involved and constricted and we have ovaralgia, and the long train of reflex phenomena necessitates the performance of Battey's operation. If this lymph degenerates into pus instead of organizing into new tissue, we have pelvic abscesses, the occurrence of which will be ushered in with chills, rigor, followed by hectic fever; the pus infiltrating the cellular tissue, wherever it goes, starts inflammatory action and cellulitis.

A number of such foci or points finally coalesce and form one or more large abscesses, which, like abscesses found elsewhere, extend in the direction offering least resistance, and generally empty themselves unaided. The most frequent point of escape, according to Emmet, is into the posterior cul-de-sac of the vagina; or, if from either broad ligament, a little to one side and posterior to the cervix. They may open into the rectum, bladder or intestine, or may follow the course of the psoas muscle, and open at the groin, or at any point of the abdominal wall. It is the least likely to rupture into the peritoneal cavity, since it requires so little irritation to produce adhesive inflammation of this membrane that it would be protected in advance.

The symptoms are generally sufficiently well marked to stamp the disease as one of cellular inflammation. The constitutional symptoms are those which usually mark the onset of inflammation, such as chills, rigors, fever, pain, shock, accompanied with such local symptoms as local heat and pain, dysuria and painful defecation. The thighs are usually flexed upon the pelvis to secure relaxation of the pelvic muscles. These symptoms usher in an acute attack; but, we must not lose sight of the fact that in this, as in other inflammations, we have the acute, sub-acute and chronic types. The first

may run through the different stages of inflammation rapidly, while the latter may be years in coming to an end. If a digital examination is made per rectum or vaginam during the first stage—the stage of serous effusion—the impression made is as if the interspaces of the pelvis were filled with a semi-elastic or boggy material; if made during the second stage, when lymph is thrown out, as if plaster-of-Paris, while in a fluid state, had been poured into the pelvis and hardened. The amount of deposit varies with the extent of the inflammation and with its duration. It may be so slight as to produce only a little thickening of the tissues; and, again, it may be to such an amount that it completely fills up the pelvis. The uterus is fixed, and the intestines are frequently massed and matted together.

The diagnosis of pelvic cellulitis may, in sub-acute cases, and in the earliest stage of an acute case, be obscure; but it soon presents symptoms of an unmistakable character.

The prognosis is generally favorable, but the *duration* is uncertain and variable, and the *complications* and perils are numerous.

The treatment must be local and constitutional. If ushered in by a chill and shock, our first efforts should be to abate its force. As soon as reaction is established, antiphlogistic means should be resorted to. Hot applications, hot drinks, quinine and Dover's powders are some of the useful agents. Another remedy to be employed for relieving the congestion is opium, which, for its local effect, is best given in the form of an injection into the rectum. At all hazards, the local irritation, as expressed by pain, must be quieted, or the current of blood will continue to flow towards the congested part. Hot water is the sheet anchor in the treatment of this local congestion. It has been used for a long time, but its efficacy has never been appreciated as it is to-day. Its action is to stimulate these tortuous and engorged blood vessels to contract and empty the stagnant blood out of them before nature attempts to do so by the exudation of serum into the surrounding tissues. We see this power of hot water to cause contraction of the blood vessels in post partum or other uterine hemorrhages. When hot water is applied directly

to any open bleeding wound, we see it stimulate the sluggish circulation around an injured joint.

The method of applying hot water in the treatment of this and other pelvic diseases, has been by injections into the vagina. Recently attention has been called to the fact that while administered per vaginam, the hot water comes in contact with only a small portion of the pelvic cellular tissue, when injected per rectum, it reaches and influences a much larger portion. It appears to us, with a double canula and an elastic tube, that a continuous stream of hot water can, with ease and great benefit, be thrown into the rectum.

General blood letting is now rarely resorted to, since modern experience tends to show that it does not prevent the occurrence of inflammation, and gives it, when it does occur, more power over the weakened structures.

If local depletion, in the form of leeches or blisters, be used, it must be with caution, as the next stage will be a critical one, and will test to the utmost the recuperative powers of the patient.

Should the disease progress as far as the second and third stages, our efforts should be to limit the inflammatory action and to remove its consequences. Quinine, opium, sun-light, nutritious diet, tonics and alteratives are indicated. The rule is as applicable here as in general surgery, to open freely all collections of pus as soon as they can be detected.

In the *American Journal of Medical Sciences* for April, 1877, we find a valuable article from Dr. Brickell, of New Orleans, on the proper treatment of pelvic effusions. He concludes that there are two forms of pelvic inflammation—serous and phlegmonous, or suppurative. An attack of either may fail to result in the formation of pus or effusion of serum. But, should either pus or serum be found, then evacuation per vaginam is the proper practice.

Upon one point in the treatment of this disease I do not think writers lay sufficient stress. I allude to physical rest. The word bumper implies motion; resolution and motion do not often go hand in hand. The weight or concussion from the movable pelvic or abdominal viscera upon this cellular tissue when in a normal state makes but little impression;

but, if a phlegmonous inflammation exists, the condition is naturally changed; if the weight of a sheet is so hurtful in peritonitis, what must be the harm done in cellulitis by the pressure or concussion of an engorged uterus, a distended bladder or intestines. Too much stress cannot, I think, be laid upon this point.

In conclusion, I deem it my duty to state that very little of this paper has been written experimentally. My object has been to present the latest views, so as to provoke a free discussion of a subject, the importance of which I think we cannot easily over-estimate.

ART. V.—**Salicin in Diphtheria.**—By C. C. CONWAY, M. D., Rapidan, Va.

As diphtheria is prevailing to such an alarming extent in many localities, I will probably not need to apologize for appearing before the profession in lauding a remedy which I have found, after using in several epidemics, most of the remedies which are well authorized—of more service in the local treatment of this disease than any other. The value of salicin as an antipyretic is second only to its topical action on the inflamed fauces. I use from two to five grains, according to the age of the patient, blown into the throat; or when this alarms the child, place the powder on the end of a spoon-handle and sliding it down to the root of the tongue, dump it off. This is to be repeated every three or four hours so long as there is much fever, and then repeat at longer intervals. With this treatment, the inflammation is subdued with astonishing rapidity; the membrane is thrown off, and the throat is left in a comparatively healthy condition in from two days to a week.

Of course, constitutional treatment, such as iron, quinine, chlorate of potassa, fumigation with sulphurous acid vapor, etc., are not to be neglected, in conjunction with the local use of salicin.

I have not found the use of salicylic acid of advantage, and besides, I dread its depressing effects in a disease tending to asthenia.

*Correspondence.***Mineral Waters of Virginia.**

Mr. Editor,—The absence of any report from the Committees on the “Medicinal Virtues of the Mineral Waters of Virginia,” after the subject has been before the Medical Society of Virginia three years, must be my apology for offering a few thoughts upon this important subject at this time. To present these views intelligently to your readers, it will be proper to give a brief review of the Society’s action.

To a meeting of the Richmond Academy of Medicine held October 15th, 1878, we are indebted for the following resolution, to wit:

“That the Academy of Medicine, through its Secretary, request the Medical Society of the State of Virginia to appoint a Commission to investigate the Medical Virtues of the Mineral Waters of Virginia.”

This resolution was brought to the attention of the Medical Society of Virginia at its session held in Richmond, Va., October 22d to 26th inclusive of the same year. Dr. J. B. McCaw, who urged the importance of such a Commission, presented suitable resolutions to this end, which, after full and free discussion, participated in by many Fellows of the Society, were adopted. A Commission was appointed and requested to report to the next meeting of the Society. (See *Society’s Proceeding, Transactions*, 1879.) At the meeting held in Alexandria, Va., one year after, the Chairman of Commission reported some progress, and asked that the Commission be continued. The subject being again freely discussed, on motion the Commission was continued. This motion was subsequently reconsidered, and the following resolution substituted, viz.:

“*Resolved*, That instead of the present Committee (of ten) on Mineral Waters, four Commissions be appointed. The first to consider the medicinal virtues of Sulphur Water; the second, the medicinal virtues of Alum and Chalybeate; the third, the medicinal virtues of Thermal Waters; the fourth, the medicinal virtues of Lithia and Alkaline Waters.”

Accepting this classification or division of the mineral waters of Virginia, let me say, in my humble judgment, no question of more importance to the profession at large, and to the invalid public, has ever engaged the attention of our Society. None deserves more careful, patient investigation. The subject is as vast in its magnitude, as in the importance of the results to be obtained. But varied and extended as is this therapeutic field, difficult of investigation and proper development, I feel assured there is industry, intelligence and philanthropy sufficient in the able committees having the subject in charge, with a willingness on the part of the profession throughout the State, to aid in bringing forth practical and valuable results. In this, to us a new departure in therapeutics, we cannot expect to compass the whole subject in a few months or a few years. Its importance and vastness require patient, laborious investigation. We have profitted too little by the teachings of Trousseau, the able works of Niemeyer, and the writings of the great linguist and scholar at whose feet many of us have drunk the inspiration of medical science. Hundreds of years of patient labor and investigation have been given to the different spas of France, Germany and other countries of Europe, giving an intelligent and valuable classification of their mineral waters. Let us profit by their teaching and example; for certainly no country is richer or abounds more largely in varied and valuable mineral waters than North America. No one section or State is more highly favored than Virginia (East and West) for the variety and value of her mineral springs—so great, indeed, as to embrace in their therapeutic application a very wide range of the ills to which flesh is heir.

The question very naturally arises, why are foreign mineral waters so universally prescribed by American physicians, to the exclusion of our equally potent and valuable native mineral waters? Is it because it has become the fashion to drink foreign water, as we do foreign wines? Is it not due to the fact that the foreign waters have been properly studied and classified, and given a prominent place in standard works on therapeutics; and also to the fact that they have been popularized by medical writers, and very largely

advertized by interested parties? It is not to be denied that many of the mineral springs of Virginia contain largely the same chemical constituents as the more popular foreign waters, as is shown by their analyses. I have not the time here to compare these, but will state that Virginia abounds in sulphur, gaseous, acidulous and ferruginous springs, which are aperient, purgative, alterative, tonic in their action upon the system. I need hardly speak in this place of the Greenbrier White Sulphur Springs, the Alleghany Springs, the Old Sweet Springs, Sweet Chalybeate Springs, the Healing, the Hot, and the Warm Springs, the Rockbridge Alum, Jordan Alum, and Bedford Alum and Iron Springs, Rawley, the Buffalo Lithia, and many others to be found in East and West Virginia. All of these have well established therapeutic virtues.

I confess, then, I enter reluctantly upon the discussion of this subject; but impressed with its importance to the profession and the public, I feel that it should not be said of the Medical Society of Virginia, after three years' discussion of the mineral waters of our native State, no practical results were obtained. The fault lies, not in the value of the waters, but, I fear, in a want of a due appreciation of the importance of the subject. Let this reproach no longer rest upon our Society—upon the intelligence of the medical profession of the two Virginias. Let committees address themselves faithfully to the discharge of the duties assigned them. Let them not despise to obtain information from those best qualified to give it—gentlemen who have given years of study and observation to special waters, honored with the confidence of the invalid public, as well as the Springs' proprietors. Let not the Committee (like some others) regard resident physicians as partisans, but as honorable men, who regard the best interest of their patients as *their first duty*. Let them obtain information from every *available, competent, reliable* source.

It is a fact much to be regretted that so little is known of our native mineral waters even by Virginians—even the medical practitioner “to the manor born.” It is not less to be regretted that the standard works on therapeutics and

materia medica should fail to recognize the importance as a therapeutic agent of the mineral waters of Virginia. In a work claiming to be a *National Dispensary*. (Stillé and Maisch), I had expected to find mention of many of the more prominent Virginia mineral springs, their therapeutic value, analyses, etc.; but with one or two exceptions, nothing is said. Also the recent works of Bartholow, Ringer, and others are equally silent upon the therapy of Virginia mineral springs. Is it because the authors really have no information upon this subject? If so, it is time they were being enlightened.

An experience of ten or twelve years as resident physician to several of the prominent mineral springs of Virginia, and a personal familiarity with the remedial virtues of others by actual observation, justifies me in speaking of their therapeutic value; and while I do not propose at this place or at this time to discuss their application to disease, I must indulge the hope that the able committees having the matter in hand will meet the demand that has been placed upon them by so large and respectable a body of medical men as compose the membership of the Medical Society of Virginia; and that we shall have at the next meeting of the Society in Warrenton, Va., not only reports of progress, but valuable reports by the different committees upon the therapeutic virtues of the mineral waters, with which Old and New Virginia so richly abound. The medical profession of the State and the country are looking with much interest to the reports of these Committees. Shall they be disappointed?

J. E. CHANCELLOR, M. D.

University of Virginia, November 26th, 1880.

Original Translations.

From the French. By RICHARD H. LEMMON, M. D., Charlottesville, Va.

Phenomena of Heredity.—At the meeting of the Société de Biologie, on the 20th of November, Dr. Brown-Sequard said that he had observed certain lesions, to which animals had been subjected, were reproduced in their offspring. He had

experimented on Guinea pigs especially, and this is what he had observed. On removing the eye of an Indian pig, the progeny of that animal are constantly maimed in the eye corresponding, after a fashion which occasioned its ruin as an organ of vision; in another pig, on causing gangrene of the ear by partial destruction of the restiform bodies, the offspring of the next birth were destitute of ears. These phenomena of heredity, he says, are quite incontestable.—*Le Progrès Médical*.

An Easy, Rapid and Safe Method of Arresting the Irritating Cough of Certain Consumptives.—M. Landouzy (in *Le Progrès Médical*.) After reviewing the various medicaments, often ineffectually used to calm the distressing and wearing cough attendant on certain stages of phthisis, the following practice is most highly commended: A syringeful of distilled water, containing a few drops of cherry-laurel water, is to be injected hypodermically in the supra- or infra-clavicular region, or in that region which appears, from physical signs, to be the seat of irritation causing the cough; the injection, rapidly, and for some time, allays the cough. As simple as this proceeding is, he advises, for the reason of its very simplicity, that a knowledge of it should be kept from the patient; and further recommends—not from the love of new chemical names, but to affect the above-mentioned object—that the proceeding should be described, not as an injection of distilled water, to which a few drops of cherry-laurel water has been added to disguise its nature, but as an hypodermic of binoxide of hydrogen. The patient should be made to think that a new and sure method of medication was being employed, which would result in his speedy relief, and thus the psychological element is introduced auxillary to its other action. He concludes, that the action of the injection in suspending the cough is similar to its action in alleviating neuralgia and other pains as reported by MM. Potain, Dieulafoy, and Vulpian. It acts after the manner of such local excitants as hot water, mustard, chloroform, &c. The injection pushed under the skin of a consumptive cougher quickly produces on the cutaneous nerve plexuses an irritation, which is conveyed to a nerve centre, exciting it in a new manner, producing a change in its molecular tension, differing from the state conditional of the cough; or in other words, the pain due to the injection drives away that special status of the ganglion, of which the cough was the phenomenon, and occupied it itself; so that a short and fugitive pain is substituted for a wearisome hacking cough. The superiority

of this method over the employment of ineffective cough mixtures, or the habitual use of morphia, is sufficiently apparent.

The Relations of Scrofula and Tuberculosis.—(Société Médicale des Hopitaux, from reports in *Le Practicien*, of 6th December, 1880.) M. Ferreol loquitur: *Apropos* of the communication of M. Grancher, I wish to examine on a clinical ground the connections which exist between these two diatheses. In the first place, do they *both* exist, or must we believe them to be synonymous? The practice of pathological anatomy, instead of giving support to one or the other side, has simply involved the question in a more complicated form. Since the days of Laennec, the definition of the tubercle has changed. It is no longer "grey granulation." Friedlander has made use of an expression, "the primitive tubercle," which is equivalent, in the terms of Charcot, to "tuberculous follicle."

Do we find the same elements in syphilitic gumma and in scrofula? The opinions of German histologists tend to confuse all the principal diatheses. M. Grancher has had reason not to follow in his beaten track. If the tuberculous follicle belongs to scrofula and becomes the "scrofulome," this will be the generator of tubercle, as, clinically, we see scrofula the generator of tuberculosis. In the opposite hypothesis, sustained in the thesis of M. Parinand, on "Local Tubercloses," such organs as the testicle, the eye, the uterus, and the brain can be tuberclosed only when pulmonary tuberculosis co-exists (after Louis.) We must still unite the "lupus" or "cutaneous tubercloses," and the "scrofulous gumma" of Bazin. In summing up, according to a number of physicians, the granulation of Laennec is only an aggregated tubercle, formed of many follicles, itself representing the completed type. In reality, clinical practitioners and histologists have little to do in order to arrive at an understanding.

Nutritive Effects of Potassium-Bicarbonate in Moderate Doses. By Dr. Martin Damourette (in *Le Practicien*.) The salts of potash have a different action from those of soda, for the reason that the last enter into the composition of the blood plasma; the first, into that of the organs. The observations consisted in giving to a man in good health from two to five grammes of potassium-bicarbonate daily. Deduced from this experiment, we have the conclusion that potassium-bicarbonate effects nutrition to a greater degree than does sodium bicarbonate. The power of disassimilation of the

potash is less than that of soda, because the urea is not so much increased, the uric acid is less diminished, and so its influence over assimilation is greater, for the reason of a great increase in the number of blood discs. Moreover, the subject of the experiment shows signs of a true plethora (feeling of fulness in the head, redness of the face as incipient erysipelas.) The blood-making action of foods rich in potash, in such diseases as scurvy, is thus explained: Besides all this, the potash increases the quantity of urine, renders more active the elimination of uric acid, and moderates its formation and is, consequently, an antiarthritic.

Proceedings of Societies.

American Public Health Association.

We copy the following report from the *Medical and Surgical Reporter*, December 18th, 1880, which journal recognizes largely its indebtedness to the efficient pen of Mr. Coleman, correspondent of the Philadelphia *Public Ledger*:

First day. The Association met, December 7th, in Grunewall Hall, New Orleans, Dr. John S. Billings, of Washington, in the chair. Over four hundred members were present. The opening prayer was made by Rev. J. N. Galleher, Bishop of Louisiana.

After the election of new members, two papers were read on abattoirs, by Dr. Bushrod W. James of Philadelphia.

Dr. Smith, of the United States Army, read an interesting article on the Texas cattle fever, which, after a brief discussion, was laid aside to receive the Report of the Committee on a plan for the Prevention and Limitation of Contagious Diseases.

Dr. Albert L. Gihon, Medical Director United States Navy, read the report, which closed with the following resolution, which, after some discussion, was adopted: "*Resolved*, That the American Public Health Association earnestly recommend the municipal State Boards of Health to urge upon the Legislative bodies of this country the enactment of a law constituting it a criminal offence to knowingly communicate by any direct or indirect means a contagious disease, such as small pox, scarlet fever or venereal disease, and giving to said Boards of Health, and to the State and municipal health officials under their control, the same power

in the prevention, detention, suppression and gratuitous treatment of venereal affections, which they now possess in the case of small pox and other contagious diseases."

A paper on "the storm water" question in relation to sewage was read by Col. Geo. Waring, of Rhode Island. The Colonel contended in his paper that the plan of getting rid of storm water in cities and towns by means of deep sewers was objectionable and pernicious to health, because of the organic matter passing through them, much of which is left near the main-traps and at corners of the streets. He proposed, as a remedy, that the gutters be so constructed as to allow all the storm water to pass without interfering with traffic.

Dr. White, of Milwaukee, was satisfied that sewage proper should be kept distinct and separate from storm water, not only on the score of economy, but so as to reduce the amount of sewer gas which originates from putrifying matter in the sewers. He said that New Orleans could get rid of its sewage proper by means of wooden pipes that could be laid in the water, leaving the storm water to flow in the gutter as at present. A paper upon the action of muddy water upon sewage was read by Prof. Brewer, of New Haven.

Dr. Waleott read a paper written by Dr. James Rane, of Brooklyn, N. Y., on the prevention of certain contagious diseases by the Local Boards of Health. The paper was one of great length, and discussed thoroughly the means that had been adopted by the Board of Health in this city.

Second Day.—Early in the session a discussion ensued upon the report made yesterday by Dr. Gihon, at the close of which the following resolution was adopted: "*Resolved*, That the Executive Committee be instructed to communicate with the State and municipal Boards of Health throughout the country, and supply them with a copy of the report of the Committee on the Prevention of Venereal Diseases, and request their coöperation in the attainment of the objects of the resolutions submitted by the Committee and adopted."

The following resolution was also adopted: "That a committee of five be appointed to prepare and recommend measures for the more efficient management and control of future epidemics, especially for the training, selection and employment of skilled and trustworthy nurses."

Dr. Billings read the report of the Advisory Committee on national sanitary legislation. The report gave an account of the proceedings taken by the Advisory Committee during

the past year. The first portion treated of the sanitary bills before Congress, especially bills relative to the International Conference on quarantine, and the bill to increase the efficiency of the National Board of Health. The National Board had no desire for increase of power over quarantine, but were willing to await the result of the International Conference. The Advisory Committee are of the opinion that it is not desirable that the Association should recommend any change in the existing legislation affecting the National Board of Health, but advise that Congress should be recommended to make suitable appropriations for the work of the National Board, and authorize the prompt publication of the reports. The Advisory Committee suggested for consideration the subject of the adulteration of foods and drugs by the International Quarantine Conference which assembles in Washington next month. The report was received and adopted.

Dr. G. B. Thornton, of Memphis, read an interesting paper on the "Sanitation of Memphis," showing the improvements made in sewage system, street paving, cleaning, etc.

Col. Waring, who spoke on the subject, said the Memphis system, in its general features, could be applied to New Orleans.

A paper on the "Valuation of Sanitation," from an economic standpoint, prepared by Col. Keating, of Memphis, was also read.

A paper on the "Sanitary Urgency of the Florida Ship Canal," by Prof. Jno. Gamgee, of Washington, D. C., was read. The paper claims that the shutting of this canal would prevent the introduction of yellow fever into New Orleans, that is now brought by ships passing through the Caribbean Sea.

A paper on "Sanitation of Emigrant Ships," written by Dr. Turner, of the United States Navy, was read by Dr. A. L. Gihon. The paper concluded with a suggestion that, as most of the emigrants are brought to our shores under foreign flags, an International Congress be had, in order to secure all the benefits that the sanitary science of the day presents.

Interesting papers on "Dengue or Breakbone Fever," were read by Dr. D. C. Holliday, of New Orleans, Dr. G. G. Thomas, of Savannah, F. P. Porcher, of Charleston, and Dr. Hoilbeck, of the same city. Dr. Burns, of New Orleans, read a paper on the "Fever of the Lower Coast."

In the evening, Dr. Hunt, of Trenton, N. J., read a paper

on "Epidemics;" Hon. Jno. E. Eaton, of Washington, on "Sanitation and Education," and Dr. Elisha Harris, of New York, one on "Domestic Pestilences."

Third Day.—The Public Health Association commenced its third day's proceedings at 10 o'clock. A resolution was adopted, that the Advisory and Executive Committees take under consideration the advisability of establishing a national museum of hygiene; also one commending the organization of auxiliary sanitary associations.

The following officers were elected for the ensuing year:—President, Charles B. White, M. D., of New Orleans; First Vice-President, R. C. Kedzie, M. D., of Lansing, Michigan; Second Vice-President, Henry F. Campbell, M. D., of Augusta, Ga.; Secretary, Azel Adams, Jr., M. D., of Massachusetts; Treasurer, J. Berrien Lindsay, M. D., of Nashville, Tenn. Executive Committee: Dr. D. C. Holliday, of New Orleans; Dr. E. M. Hunt, of Metuchen, N. J.; Dr. George M. Sternberg, of U. S. A.; Dr. E. L. Griffin, of Fond Du Lac, Wis.; Dr. J. C. Thomas, of Savannah, Ga.; Dr. Thos. F. Wood, of Wilmington.

The following papers were then read, "On the Relations of Schools to Diphtheria," by Dr. Baker, of Michigan; "On Municipal Sanitation, as Practised in Mobile," by Dr. Scales; "On the Results of Attempting to Check the Spread of Smallpox in Chicago," by Dr. Dewolf; "On the Relations of Certain Filth Diseases to Cold Weather," by Dr. Dell, of New York. Papers were also read by Dr. Atchinson, of Tennessee, Prof. Chaillé, of New Orleans, and Hon. Erastus Brooks, of New Orleans.

Fourth Day.—After prayer and election of new members, the following resolutions, presented by the Executive Committee, by Dr. Harris, of New York, were adopted:

Resolved, That this Association recognizes and earnestly commends the efforts of the National Board of Health to secure practicable laws of uniformity for the nature and nomenclature of diseases and causes of mortality, and again urges upon all State and local boards of health and upon other public authorities, the medical profession and all members of this Association, to do whatever they can to promote such uniformity and thoroughness.

Resolved, That a committee of three members be appointed to have this subject under consideration, for the purpose of reporting progress and plans relating thereto at the next annual meeting, in coöperation with the National and State Boards of Health, and with the medical and statistical bodies that have this subject under consideration.

Resolved, That systematic sanitary surveys and inspection are essential aids to successful public health works, and to the progress and application of sanitary science; therefore, this Association urge upon such local authorities the importance of such surveys, and the sanitary maps and records that pertain thereto, and also would recommend that the registry of prevalent diseases and mortality be made as frequently as practicable, so coördinate therewith as to disclose the preventable causes which need to be removed.

Resolved, That the contagiousness of diphtheria is so established, that that disease should in all cases be treated with the same rigorous isolation and quarantine that is everywhere enforced against small pox.

Resolved, That as we know little or nothing of the origin of diphtheria, we will request the National Board of Health to continue its investigation into the causes of this disease.

The following, offered by Dr. Henderson, of Kentucky, were agreed to:

Whereas, There are annually occurring in our own large centres of population, and frequently in the provincial districts, numbers of cases of sickness and death from small pox; and

Whereas, the only certain method of restraining and preventing this loathsome disease is by vaccination and re-vaccination; therefore be it

Resolved, That the boards of health of the several States in the Union, or where no State boards of health exist, the Medical Society, be requested to take the matter under immediate advisement, and direct the attention of all local boards of health to the importance of vaccinating all persons in their respective districts not previously vaccinated.

Resolutions were also adopted providing that, for the better protection of public health, the Legislatures of the several States be invoked to enact measures imposing severe penalties against any person who, while suffering from any dangerous contagious or infectious disease, willfully exposes himself, without proper precaution against spreading the said disorder, in any street, shop or other public place, without the persons so diseased shall notify the owners of buildings, or conductor or driver of vehicles or other conveyance that they are so suffering; also to impose a penalty upon any person who, being in charge of any one so suffering, shall willfully and knowingly expose such sufferer.

Professor Chaillé, of New Orleans, read an interesting summary of the conclusions of the Havana Yellow Fever Commission; after which the President-elect, Dr. White, was introduced, returned thanks, and the Association adjourned.

Analyses, Selections, etc.

Prepared by HUGH M. TAYLOR, M. D., Demonstrator of Anatomy, etc., Medical College of Virginia, Richmond.

Remote Effects of Diseased Teeth.—Dr. W. D. Kemston wishes to lay stress on the fact that diseased teeth frequently result in disease of the parts. The presence of pus in the mouth, be it from an alveolar abscess or suppurating gums, exercises pernicious effects by giving the patient a bad taste in his mouth, and thus destroying his appetite by passing down with the saliva, food, etc., into the stomach and demoralizing the digestive functions by the gases eliminated by its decomposition passing into the lungs with the respired air, and vibrating it. Carious teeth afford a lodgment for food, which, if allowed to remain, will decompose, and act through the same channel.

The results arising from diseased teeth may arise from three causes: 1st, reflex action; 2nd, non-use; 3rd, morbid discharges. Dr. Samuel Sexton thinks, of 1,500 cases of aural diseases treated by him, perhaps one-third owed their origin or continuance, in a greater or less degree, to diseases of the teeth. He mentions a decided case of inflammation of the membrana tympani in a child, due to a portion of a deciduous tooth remaining in the gum, the removal of which cured the disease. Another case of aural inflammation, which did not improve as rapidly as it should, was found to be complicated with an alveolar abscess. Koëcker reports a case of a man, aged 43, who suffered from suddenly increasing deafness; but after some carious teeth were removed, his recovery was rapid. Prof. Foerster mentions cases of simple and phlyctenular conjunctivitis, due to disease of teeth, which were cured by extracting the teeth. From a similar cause, and with similar result from extracting the teeth, Dr. Dewitt reports a case of unilateral blindness. Germain, Gaine and others mention cases of trismus, facial paralysis, epilepsy, cough, headache, nausea, vomiting, closure of the jaws, and pain in the arm and forearm, as some of the other evils resulting from decayed teeth.—*Cincinnati Lancet and Clinic*, Oct. 16th, 1880.

Progress of the Treatment of Strictures of the Urethra.—At the last meeting of the British Medical Association, Sir H. Thompson read a valuable paper on the present and past

methods of treating strictures. The advances he classifies under five heads. The first consists in the acceptance of the fact that delicate and gentle manipulations accomplish more than force. The second, in the substitution of very pliable and tapering instruments for silver and stiff gum-elastic instruments, both in ordinary and in continuous dilatation. A third, in the more general acceptance of the doctrine that—given time, patience and gentle handling—very few strictures should be met with, which cannot be fairly and successfully passed; and an improvement is to be noted in the mode of operating on those exceptional cases which cannot be passed. A fourth consists in a more general acceptance of the doctrine that dilatation of the urethra, whether with or without incision, may be carried with advantage to a somewhat higher degree than had, for some time, been accepted. A fifth consists in the substitution of internal urethrotomy in some form, for the application of caustics and for external urethrotomy on a guide. He urges gentleness, which, he thinks, is best insured by using the flexible instruments; and he reiterates the old truism that, where water can pass out, generally an instrument can pass in. He reminds us that the urethra is simply a long chink, the sides of which are maintained in close contact by organic muscles. He credits Dr. Otis, of New York, with reviving the important question of the extreme dilatability of the urethra. Many years ago Boyer, Ulayor and Pearson established the fact that it was capable of much more dilatation than was previously supposed. Whilst admitting its great use, he would caution against its abuse. He thinks internal urethrotomy is preferable to Symes' operation. He thinks we cannot promise an unvarying, permanent cure by any of the methods. The great desideratum of the present time, unquestionably, is the discovery of a mode of treatment which shall permanently restore the stricture of the urethra to its former dilatability. This is a grand field for usefulness and reputation.—*Louisville Med. News*, Sept. 18th, 1880.

Insolation or Sunstroke.—This patient was picked up in Avenue H in a comatose condition, and when admitted at 8:50 P. M., yesterday, was still comatose; the breathing stertorous and labored, the skin dry and hot, the eye-lids closed and the pupils contracted; the temperature in the axilla was 106°. I have known it to be 110° in a case which recovered under treatment. The pulse was 106°, full, incompressible; there were involuntary evacuations of the bowels,

and vomiting. The lungs were examined, but presented nothing abnormal. The treatment consisted in putting, at once, the ice bag upon the head. Then he was put upon what is known as Kilby's eot—which is a eot so constructed as to allow of a very convenient application of cold or warm water, as the case may be, to the whole body, and he was bathed with cold water. At 9:30 the temperature in the axilla fell from 106° to 102° ; at 10:30, 101° . Consciousness is returning, and there is every indication of a recovery.

Cases of sunstroke are of a somewhat diversified character, and a discrimination is very important. The case above cited was a typical one. Sudden coma and a very high temperature being the marked features. In other cases we do not find the high temperature, the forcible pulse, or the strong action of the heart. A distinction should be made between cases where the symptoms are those of exhaustion and cases where the symptoms are those of cerebral congestion. Other cases occur in which we have developed, very quickly, all the symptoms of acute cerebral meningitis, and these are to be treated as cases of acute cerebral meningitis. In the cases marked with strong pulse and high temperature, we have indications of active cerebral congestion, and venesection is indicated, and life is often saved by a resort to it.—Austin Flint M. D., *Hospital Reports, Med. and Sur. Reporter*, Sept. 18th, 1880.

Tuberculosis, an Infectious Disease.—Dr. Bruhl, in a paper read before the Cincinnati Medical Society, thought the investigations of Cohnheim had established, beyond a doubt, that tuberculosis belongs to this class of diseases. The material for Dr. Bruhl's paper came partly from the practice of others, and partly from his own observations, which seem to verify the results of the pathological experiments. In an essay upon this subject, by Dr. Hubert Reich, the following prominent points were brought out: From July 11th, 1875, till September 29th, 1876, there died in the village of Neuenburg, which is situated on a high bluff of the Rhine, and enjoying excellent hygienic conditions, ten children with tubercular meningitis, who had been born in the period between April 4th, 1875, and May 10th, 1876. A hereditary disposition to this disease, did not exist in any one of the children. All these children were delivered by the same midwife. This midwife was suffering from pulmonary tuberculosis, and a careful examination made in the month of July, 1875, revealed the presence of caverns and sanio-purulent sputa.

She died July 23rd, 1876, having attended to her duties till a short time before her death. She had the bad habit, when a child was born, of removing the phlegm from the respiratory passages by aspiration with her mouth, and in slight cases of asphyxia to blow air into the child's mouth, in order to more vigorously excite the respiratory motions, whereby the transmission of the air expired by her and, perhaps, particles of her sputa to the lungs of the children became probable. Tubercular meningitis is no disease endemic in the village. In the nine years ante-dating this event, (1866-1874), only two children, out of ninety-two, died with this disease in their first year; and in 1877, out of twelve, only one, and this descending from tuberculous parents. Taking all these facts into consideration, it could not be assumed that all these cases of death from tuberculous meningitis in such a short space of time, were a mere accidental accumulation of cases; they pointed to rather a common source and origin, and this source seemed to be the infection emanating from the phthisical midwife. Dr. Bruhl had more than a dozen times observed that, after a husband dies with tuberculosis, his widow, who marries again a few years later, also dies with tuberculosis, and her second husband with the same disease. Or where a wife had died and her husband had married again, and then he, and later the second wife, had succumbed with phthisis. It must be borne in mind that the second set of victims had no hereditary disposition to phthisis. A more remarkable case still: the speaker had under his observation that of a gentleman, twenty-four years of age, who nursed two of his friends at college, who suffered and died with tuberculosis. Shortly after their death he was attacked with severe obstinate cough, and at present he presents all the symptoms and signs of tuberculosis. His brothers, sisters and parents are healthy and have no hereditary taint. The speaker knew a father and mother over seventy years old who had lost four out of five children.—*Atlanta Med. and Surg. Journal*, June, 1880.

[In connection with these facts we would mention the sad history of one of the most prominent families in this State. A married sister, with developing phthisis, was nursed by an elder sister. The former died, and the latter returning home soon followed her, a victim of the same disease. During her sickness she was nursed by a younger sister, who has now consumption, which is only held in check by a most active out door life; while a younger brother, who has been more or less subjected to the same influences, has had hæmorrhages

and has just returned from Colorado improved but not cured. Two daughters, married early, left home and have no tendency to consumption whatever; the remaining four, being subjected to the same influences in six years, have developed phthisis; two have died and two remain, but both with dangerous and unmistakable phthisical trouble.—H. M. T.]

Milk Sickness or Trembles.—A cow affected with milk sickness will communicate the disease through her milk to her calf; the calf dying, will give the disease to hogs eating the dead calf; dogs eating the dead hogs will die of the disease, and buzzards eating the dead dogs will die of the disease. It is a disease that reproduces the cause in animals affected. This would be rather against the theory of a mineral poison. If I am not mistaken, I have seen cases reported occurring in cattle kept up in cleared ground, thought to be produced by very impure water drainage from the barn-yard. I have thought for years the microscope would reveal the true cause of the disease if ever discovered. Dr. Gardiner, of Bedford, Indiana, has given a very interesting report of some cases he has seen. Some thirty years ago I was told by a neighbor that he had known Indians to eat the flesh of cattle dying of the disease, without being hurt by it. They cut up the flesh and dried it thoroughly by heat. It was cut in small pieces, and when dry would not be more than three inches square. The heat of the fire would destroy all bacteria or other microscopic living growths.—*Med. and Surg. Reporter*, November 6th, 1880.

[In a conversation a few days ago with a gentleman from a section of country in North Carolina in which this disease is often noticed, he remarked that the spots where this poisonous weed (as he supposed it to be) grows, soon becomes known to the people, and is fenced in to keep out the stock. These spots are generally dark, damp groves into which the sunlight rarely penetrates. He has known such spots to become literal bone-yards, and yet, when cleared and cultivated, they become good pastures; he thinks in the case of milch cows the poison is eliminated with the milk, and the cow often escapes; but people or anything else on drinking the milk, are almost invariably made sick. He has known dairymen to ship butter and milk to market which they were afraid to use themselves. He thinks many unsuspected deaths from this agent occur; he is sure he has seen eight.—H. M. T.]

An Entozoon in the Kidneys.—Dr. N. D. Gaddy read a paper before the Mitchell District Medical Society, in which he reported three cases in whose urine worms were found. The first, a farmer, had passed many small worms per urethram. He had consulted many physicians, but their incredibility led them to slight his statements and case. He suffered with pain in his back, thighs, and abdomen, anorexia, nausea, cephalalgia, muscular tremors, palpitation of the heart, arterial throbbing, jactitation, insomnia, frequent micturition, and constipated bowels, interrupted by occasional diarrhœa. He said he had frequently seen these worms writhing in the stream as he would be urinating, and that there could be no mistake about them. A younger brother of this patient suffered at the same time with the same trouble, only the digestive disturbance in the latter was more intensified. Both gentlemen furnished specimens of the worms. They were perhaps a thirty-second part of an inch in diameter and two-fifths and three-fourths of an inch in length. The third case, an ex-soldier, complained of pain in the back and thighs, with much disturbance of the general system, anorexia, nausea, emesis, fever, etc. Aloes acted as a specific in each case; it cured all these cases, and each one passed a large worm an inch and a half long. The smaller worms presented under the microscope the appearance of the *dactyllus aculeatus* as described by various writers. One specimen, after being somewhat dried, presented the appearance of the *distoma hæmatobium*. One peculiarity observed in experimenting with these worms, was that when put into urine they were thrown into violent convulsions, which would continue for a short time, when they would slightly curl up and lie suspended in a seemingly lifeless condition in the fluid. When taken out and immersed in clear, cold water, they returned to life, and in a short time regained their usual vigor. Is it that they are only propagated in the bladder, or is it because the urine out of the bladder differs from that in the bladder? Or are the eggs deposited somewhere protected by mucus? There was no evidence of destructive lesion of the urinary organs—no discharge of pus and little if any mucus. Let this worm be the *dactyllus aculeatus* or not, it is certainly bi-sexual, as none of the patients reported but one large worm, the discharge of which ended the trouble. And a discharge was quickly effected by the use of aloes.—*Indiana Medical Reporter*, August, 1880.

New Treatment of Abscesses.—In the wards of Dr. Steven

Smith a new treatment of abscesses has been very successful. When the abscess points it is opened and the contents evacuated. The cavity is then injected with carbolized water, and over-distended for two or three minutes. The water is then pressed out, and over the whole area undermined by the cavity, small, dry, compressed sponges are laid and bound down with a bandage. Carbolized water is then applied to the bandage and injected between its layers until the sponges are thoroughly wet, after which a dry bandage is applied over all. The sponges by their expansion make firm and even compression upon the walls of the abscess, and hold them in perfect apposition, thus favoring a union. The dressing is left on for five or six days, unless there is a constitutional disturbance or pain in the seat of the former abscess. It is found, in most cases, when the bandage is removed, that the abscess has completely closed by an approximation of its walls, and the external wound heals readily under a simple dressing of carbolized oil. A case was recently seen where this admirable result was secured in a child, although the abscess was a large one, originating in caries of the head of the femur and opening on the outside of the thigh. No constitutional disturbance, no discharge, no real accumulation, and no pain followed its use. Mammary and sub-mammary abscesses have been treated by this method with excellent results.—*Chicago Med. Review*, November, 1880.

Cæsarean Section—Its Modifications.—To a very great extent, laparo-elytrotomy as performed by Thomas, and ovaro-hysterotomy, or Porro's operation, are destined to replace Cæsarean section. The current of opinion at this time is in favor of Porro's operation in most cases where the cause of obstruction is irremediable and permanent, as it brings about a termination to further gestation, and lessens a certain class of risks to life. Cæsarean section has always proven a much more successful operation in America than in Europe, where it has been chiefly performed in hospitals, the result being nearly always fatal to the mothers. One hundred and eighteen cases in Great Britain give ninety-six fatal results, while of one hundred cases occurring in American practice forty-four women were saved. Compared with the European countries, the proportion of such cases found in America requiring such a formidable operation is small; but it is a question of great moment and merits thought. In 1870, Dr. T. G. Thomas, of New York, performed the operation de-

scribed by him in the *American Journal of Obstetrics*, April, 1880, under the title of "laparo-elytrotomy," intended as a substitute for Cæsarean section, claiming greater safety in that, neither the uterus nor peritoneum are injured. The operation consists, after dilating the uterine os, in dividing the abdominal wall by an incision extending from a point one inch above the anterior superior iliac spine, with a slight downward curve, parallel with Poupart's ligament, until it reaches a point one inch and three-quarters above and to the outside of the spine of the pubes; after the transversalis fascia is divided, the fold of peritoneum is lifted carefully by the fingers, and the upper part of the vagina thus exposed; this is lifted by means of a stout, steel sound passed in from the vulva; the vagina is opened on the sound to an extent sufficient to admit a finger which lacerates the wall until the opening is large enough to admit the hand; the child and placenta are here delivered and the uterus caused to contract. The abdominal wound is closed. Results from the operation are encouraging. Of five cases operated on by this method, three recovered. Two of the five were in articulo mortis at the time it was resorted to. "Cæsarean ovaro-hysterectomy," or ablation of the uterus and ovaries as a termination to Cæsarean section, was done in 1869 by Dr. Storer, of Boston. In 1876, Prof. Porro, of the University of Paria, in performing Cæsarean section on a rachitic dwarf, finding that the uterus failed to contract sufficiently to prevent hæmorrhage, immediately determined to remove the organ, which he did with a strong iron wire and ligature around the cervix, opposite the inner os; the pedicle was fastened in the abdominal wound, and the case treated as an ovariectomy, except that a drainage tube was passed through Douglas' cul-de-sac. In forty days the woman could walk, run and jump without the production of abdominal pain. The celebrated James Blundell, of London, suggested this operation fifty years ago. Dr. J. E. Taylor, of New York, reports (*American Journal of Medical Science*, July, 1880,) a case in which he dropped the pedicle into the abdominal cavity, the patient dying. Dr. Harris, of Philadelphia, urges the external treatment of the pedicle as practised in Europe, where the successes have been $51\frac{2}{3}$ per cent.—*St. Louis Courier of Medicine*, September, 1880.

[It has occurred to us that it would be well in Porro's operation to adopt the method resorted to by Schröder in removing the uterus: that is, to conically excise the body from the neck as low down as the internal os. By uniting these

flaps with sutures, there can be left but little discharge to go into the peritoneal cavity; most of it will escape through the neck of the uterus into the vagina.—H. M. T.]

Cold as a Cause of Deafness.—Dr. Theodore Griffin, of La Prairie, Ill., thinks cold a prominent factor in the production of organic disease of every part of the body; and especially of diseases of the ear, a majority of the diseases of the ear are directly or indirectly traceable to the influence of cold. The troubles generally brought about by cold are diffuse inflammation of the external ear, simple acute inflammation of the membrana tympani, simple and acute inflammation of the cavity of the tympanum, disease of the labyrinth, mastoid processes and cells, inflammation of the Eustachian tubes. These inflammations may, and often do, become suppurative and chronic, and result in a diseased condition of most of the organs of hearing. A great number have had their insidious beginning in the common cold in the head, and have a history of frequent recurrent colds. These colds are usually accompanied by nasal catarrh, and often by tonsillitis and pharyngitis, with some pain and a crackling noise in the ears; thus slowly and insidiously, chronic catarrh of the middle ear has developed. Chronic catarrh of the middle ear is to otology what granulated lids are to ophthalmology. It is a most persistent disease, and fully eight-tenths of the cases met with are caused directly by cold. We are often surprised at the rapidly-successful termination of our efforts to restore hearing, while, again, we are often correspondingly disgusted at the negative results of our best directed efforts. Patience and perseverance are generally required both on the part of physician and patient; for months of treatment are often necessary to perfect a cure. The mouth and nose—the gateways to the middle ears—should be carefully guarded in those liable to these colds. Too little prominence is given to the fact that every act of swallowing sends a current of air plump into the cavity of the middle ear. If suppuration has occurred, the matter should be removed. Perforations in the membrana tympani are not necessarily fatal to hearing.—*St. Louis Med. & Surg. Journ.*, Oct., 1880.

Complete and Universal Alopecia Following Fright.—Total baldness coming on rapidly is usually the result of severe fevers, and is followed by entire restoration to the normal

condition. A case of Frédet is cited which may, perhaps, be regarded as unique. A healthy Italian blonde, aged seventeen, lymphatic, with exceptionally profuse hair, was sewing at the window. Suddenly the floor fell in, leaving her only time to catch hold of the window frame, where she hung until taken down by means of a ladder. No subsequent loss of consciousness nor nervous excitement ensued through the day. At night, she had headache, chills and bad dreams. In the morning, nervous excitement, weakness at the knees, spasms in the fingers, and great itching of the scalp developed. The following day she felt better, only the itching of the scalp remaining. But on arranging her hair, whole tufts came out by the roots, adhering to her comb. In three days, not a single hair was left on the scalp. Eyebrows, eyelids, axillæ, genitals, began to lose their hair the day after the falling began from the scalp, and in five days these regions were utterly devoid of hair. General health good; no functional disturbance of any kind. A month after the fall of hair began, Frédet was consulted. The fallen hair, which had been made into a wig, was fine, silky, very rich and long. Not a hair could be found on the body, though a lens was used in the search; head as smooth as a billiard-ball; no more itching, and sensation normal. The physical condition was otherwise perfect. Mentally the patient had become despondent, fearing non-recovery of her hair. Two years later, after constant treatment, no return of hair.—*E. Wigglesworth, M. D., in Boston Med. & Surg. Journ., Oct. 21, 1880.*

Treatment of Nephritic Colic.—Dr. Charles G. Stockton contributes to the *Buffalo Medical and Surgical Journal*, November, 1880, a useful paper upon the treatment of nephritic colic. Much of the information embodied in the paper was derived from personal experience. He calls attention to the fact that the pain caused by renal calculus differs widely in degree and kind, depending upon the character of the concretion, the peculiarity of the patient, and a variety of other circumstances. Lodged in the pelvis of the kidney, the stone is irregular in its manifestations—at times producing no discomfort; again, a sense of oppression is felt in the region of the affected organ, varied by a dull, full, bursting pain that radiates through the sympathetic nervous system, causing anorexia, looseness of the bowels, frequent and scanty micturition, and marked irritability and peevishness. Active treatment is not indicated. Rest, with a mild diuretic, and a dose of bromide of potassium, often tide over such attacks.

The brisk secretion of urine appears to lessen the irritability of the kidney; and it is materially assisted by copious draughts of pure or mildly alkaline water. It is often after some unusual exertion that a sensation of uneasiness is experienced. This uneasiness soon gives place to intense pain in the lumbar and inguinal regions of the affected side, which shoots down into the corresponding testicle, which, alone or with its fellow, is violently retracted. Micturition is painful and almost continuous; the urine scanty, highly acid, and of a grayish hue, and often mingled with blood. The gastric apparatus is greatly disturbed. There is flatulence, colic, frequent dejections and tenesmus. The pain is best controlled by morphia and atropia hypodermically, and the application of heat—either by long continued general bath, or by rubber hot-water bags, placed under the back and about the scrotum. He lauds the hot-water bag as an epithem. It is more efficacious than both, since it can be used more continuously without fatigue to the patient. He quotes Roberts as saying: "For therapeutical purposes, urinary calculi may be divided into two classes, viz: Those which are soluble in alkalies, and those which are soluble in acids. To the former category belong uric acid, the urates and cystine; to the latter, phosphatic and mulberry calculi. Those which are soluble in alkalies may conceivably be attacked by "alkalynizing" the urine by means of certain salts administered by the mouth. Acids cannot be made to pass through, save in insignificant proportions. Mulberry calculi are unassailable by any solvent method hitherto proposed; so that the solvent treatment of urinary calculi resolves itself practically into attacking uric acid calculi and their congeners by "alkalynizing" the urine by means of medicines administered internally." These views are well grounded; but as five-sixths of all renal deposits are uric acid, we may expect a fair proportion of good results.

The solvent treatment is old. In 1739, a remedy for stone, the nostrum of Joanna Stephens, "composed of burnt egg shells and snails, with alicant soap," attracted great attention in England. It fell into disrepute from being used in all cases of uro-lithiasis. The alkaline treatment was somewhat revived by the discoveries of Wallaston Fourcroy, concerning the nature and composition of urinary calculi. Potash has greater solvent powers than soda upon uric acid. Roberts advised the use of the citrate or acetate of potash. Heller prefers phosphate of soda; others recommend carbonate of potash, the bi-carbonate of soda, and carbonate of lithia. The treatment must be continued for weeks, or until the stone is

supposed to be dissolved—always discontinuing the alkalies when the urine becomes ammoniacal.

One case in 49 at Aberdeen, compared with one in 4303 at Genoa, proves the influence of climate in producing kidney troubles. In very cold climates the respiratory function is so much exalted that the stress of excretion falls upon the lungs, and much passes off by the lungs that, in warmer climates, would pass as excrementitious matter from the kidneys. In warm climates, other excreting organs than the kidneys are in a state of increased activity. A failure in the action of the skin would occasion a demand upon the liver and alimentary canal rather than upon the kidneys. In temperate climates, it appears that the kidneys sympathize and alternate with the skin more than do any other organs. So that an exposure which, in England, would produce a nephritis, in India would develop hepatitis or dysentery. While not knowing the exact relation, we do know that calculous formations are related to disturbed assimilation. In some cases, strawberries always produce nephralgia. Hard—particularly lime waters—should be interdicted; but the drinking in abundance of wholesome waters is advised. Upon drinking Niagara water, the urine becomes more acid and turbid. The drinking of Bethesda, Apollinaris, or rain waters increases and clears the urine, rendering it less acid. Probably the Springs of Viehy provide the best waters for cases of uric acid diathesis. Rosecrean is like Apollinaris, without, however, the gas. [Why not use Buffalo Lithia Springs water? Many good results have followed their use.]

Experiments in Contagion and Prophylactic Inoculation.—The contagium of infectious diseases is regarded by some authors as too minute to be discovered by the microscope; by others, as bacteria, which cannot be distinguished from those generally found in many pathological processes in the body. The spread of the contagium requires a region (a habitat) wherein it has always been endemic, as India for cholera, and Ireland for typhus fever, unless we accept for it a theory of spontaneous generation. It also requires a certain age, sex, and predisposition on the part of the individual, and its extension is promoted by warmth, moisture and filth. These accessory circumstances explain how there may be degrees in contagion. Each infectious disease must, besides, have special bacteria assigned as its cause. Recent experiments have strengthened the germ theory, and filled the gap so long left in the etiology of many important diseases. Prof. Lister, by

ingenious methods of staining, has been able to detect not only the bacillus anthracis, which causes anthrax; but he discovered other specific micro-organisms. These were the bacillus septicæmia and the chain micrococcus—the latter always causing gangrene when injected into house mice. The bacillus septicæmia is an extremely minute organism, and would be invisible unless stained. Dr. Koch has been able to prove that it always causes septicæmia—never pyæmia—when injected into mice. Lister has shown that fowl-cholera is a highly infectious blood disease, characterized by the swelling of the lymphatics of the neck, pericarditis and duodenitis, but without diarrhœa. The bacterium claimed to be the cause of the fowl-cholera, is oval shaped, multiplies by transverse constriction, and is about $\frac{1}{400000}$ of an inch in diameter. Pasteur has cultivated this organism, and has been able to modify it, so that by injecting the modified fluid, he can cause a mild form of fowl-cholera protective against a second attack. In the same line of inquiry, Dr. Greenfield has, by experiments, shown that if a guinea pig be inoculated with the blood of a heifer suffering from splenic fever, the former animal will take the disease; if, now, the blood of the guinea pig be inoculated in a healthy heifer, it will protect it against splenic fever. Prof. Toussaint has performed similar experiments in regard to vaccinating for anthrax. But he went further; he showed that the protective power is not conferred by inoculating any form of the bacillus anthracis, but by inoculating the fluid in which it had grown. Pasteur does not recognize any spontaneous origin of diseases. Every one of them has its material cause, and anthrax is always produced by the bacillus anthracis. After digging some earth from the bottom of pits in which cattle, dead from anthrax, had been buried two years previously, Pasteur found germinal corpuscles in it, and succeeded in inoculating and killing animals with anthrax. The manner in which anthrax germs come to the surface is explained thus: It is shown that earth-worms, after feeding on the corrupted dirt, come to the surface, where they deposit their excrement, which contains a large number of germinal corpuscles. These, after drying, are blown by the wind in all directions, on plants, flowers, and on the abrasions common on the skin of cattle. This he thinks suggests the possible influence of soils in the etiology of disease, the danger which may result from grave-yards, and hence the usefulness of cremation. Toussaint was to inquire into the conditions which render an organism proof against the action of bacteria. His manner of proceeding

consisted in depriving the blood of animals, sick with anthrax, of its bacteria through filtering, in raising its temperature to 138° F., and in inoculating it in the groin and in the neck in the neighborhood of the lymphatics. The result of the inoculation is slightly manifested locally, and the blood is modified and becomes proof against the growth of the bacillus anthracis.

The following are his conclusions: The blood of animals suffering from anthrax, divested of its bacteria, does not communicate that disease, but an affection *sui generis* which imparts to the organism an immunity against anthrax. The germinal corpuscles, whose office is so important, according to Pasteur, do not exist any longer in the blood after filtering. An infectious liquid may produce a pathological change, although deprived of bacteria and germinal corpuscles. The lymphatics have a necessary office in the production of infection, as previously proven by Cohn. Dr. M. P. Miquel is of the opinion that although the germs of bacteria are always present in the atmosphere, their number depends on incessant variations. The number of atmospheric bacteria, very small in winter, increases in the spring, reaches its height during summer and the first part of autumn, and rapidly diminishes during frost. The same law can be applied to the sporules of fungi; but, while these are numerous during damp weather, the quantity of bacteria is at the same time diminished, and rises again when the soil becomes dry—precisely during the time when the sporules of fungi become rare. It is inferred that the growth of one kind of bacteria excludes, to a great extent, that of another. This is the more probable as statistics prove that an epidemic of one or two of the infectious diseases is generally accompanied by a diminution in other diseases belonging to the same class in the same locality.—Dr. H. D. Valin in *Chicago Med. Jour. and Exam.*, November, 1880.

Dengue, Scarlatina Rheumatica, Breakbone Fever, are synonyms for a disease which may be defined to be an acute infectious disorder, marked by a fever of one paroxysm; by excruciating neuralgia, followed by an eruption varying in its characteristics and time of appearance. It is an epidemic disorder, sweeping in its character, so much so that if yellow fever were to prevail as equally general as dengue, and like it attack the same individual repeatedly, it would be manifold more to be dreaded than now. If cerebro-spinal meningitis were equally sweeping and as fatal as it usually is, it

would devastate every population it invaded. An attack of dengue is usually sudden, and liable to occur at any time during the day or night, differing in this respect from malarial fevers, which generally begin during the day. It is ordinarily ushered in with a chill or chilliness, not infrequently described as flushes of hot and cold. These sensations often last for a day or two, much to the annoyance of the patient. But they are a small part of his afflictions, when compared with the neuralgias which are so prominent as to fix the nomenclature of the malady in every country where it prevails. The pain of dengue is an experience never to be forgotten. The resemblance to muscular rheumatism is very marked. Peri-articular swellings often attend or follow the attacks, but effusion into the synovial cavities are not common. There is, therefore, a perfectly marked distinction between the disease and rheumatic arthritis. The heart or its investments never become involved in the morbid process of dengue. The fever of dengue is monoxysmal—that is, it is a fever of one paroxysm. The markings of temperature are so nearly those of yellow fever, that great care should be observed not to confound them. The eruption of dengue is a more constant symptom than some observers suppose. In some cases it is taken for tropical lichen. In others it is not found, because the cases are dismissed from treatment before its appearance. Vomiting is an extremely common symptom, and the mouth is pervaded, during and after the attack, by a wretchedly vitiated and disgusting taste; of course complete anorexia and insomnia exist. The writer has never seen albuminous urine in dengue, and knows of no clinical records which support a belief that it is liable to occur. He has never seen abortion occur in dengue, and is satisfied that it is no more liable to produce abortion than other febrile states. He has never seen black vomit in dengue, nor any satisfactory evidence to show that it is a hæmorrhage-inducing fever. Hæmorrhagic fevers are fatal fevers; dengue never kills, except through complications. Malarial fevers may produce slight hæmorrhages in primary attacks; but to induce well marked tendency to hæmorrhages, chronic toxæmia must intervene, and weaken blood-vessels to such an extent that they are liable to rupture. A differential diagnosis between dengue and yellow fever is often impossible in the early stage of the paroxysm; but as the case progresses, the lines of divergence in symptoms become obvious and striking. They are both civic diseases, invading towns rather than isolated habitations. Their climactic eras of prevalence have great

similarity. Each has its own specific poison. A gentle cathartic in the early part of the clinical career, opium in combination with chloral or bromide of potash and quinine, comprise the pharmaceutical armamentarium. Warm baths, frictions, cooling diet, and stimulants, and keeping the patient in doors until recovery is complete, constitute the hygiene of the sick room.—Dr. S. M. Bemiss in *New Orleans Med. and Surg. Journal*, December, 1880.

Indigestion a Cause of Nervous Depression.—In the *Practitioner*, October, 1880, we find an article upon the subject of nervetive overwork and depression which is especially interesting to us, as it is upon a disease or condition very commonly met with by physicians. Of late years its importance has become better appreciated, and it receives the careful attention of all good writers. The author of the paper referred to is T. Lauder Brunton. M. D., F. R. S.

The even-tempered man becomes irritable; the clear-headed man muddled; the active, lazy; the sober, perhaps a tippler; and the cheerful and buoyant, depressed and melancholy. The brain performs all its functions with difficulty, and the mind is so altered that it does not seem to be that of the same individual. He takes butcher's meat three times a day, and perhaps also strong soups, to say nothing of wine or brandy and soda to pick himself up. He says: "I take all sorts of strengthening things, and yet I feel so weak." Dr. Brunton thinks if, instead of using these words, he would say: "Because I take all sorts of strengthening things I feel so weak," he would express at least a part of the truth. A want of oxygen, and not of fuel, he thinks, more frequently causes the fire of mentally hard-worked men to languish. If the fire is dull, consumption of the fuel will not be complete, and much refuse matter will remain. It would seem that vital processes are much more readily arrested by the accumulation of waste products within the organs of the body, than by the want of nutriment to the organs themselves. The writer reminds us of the fact that we are now completely alive to the important results produced by the absorption from the intestinal canal of poisonous matter, such as typhoid germs, arsenic or strychnine, introduced into it from without. But perhaps we are not yet sufficiently alive to the important results produced by the absorption from the intestinal canal of substances generated in it by fermentation or imperfect digestion. We recognize the danger of breathing gas from a sewer, but probably we do not sufficiently realize that nox-

ious gases may be produced in the intestine; and being absorbed from it into the circulation, may produce symptoms of poisoning. One, at least, of the chief components of sewer gas (sulphuretted hydrogen), may be formed in the intestine. This gas, which is so readily recognized by its smell, resembling that of rotten eggs, was found by Demarquay to be very quickly absorbed when injected into the rectum, and to be quickly excreted from the lungs, sometimes appearing to produce, during its elimination, some inflammation of the trachea and bronchi. It seems not improbable that the production of this gas in the intestine may have something to do with bronchitis, which is not unfrequently observed in connection with digestive disturbance. In cases of indigestion, this gas seems to be not infrequently formed, because persons often complain of the taste of rotten eggs in the mouth or in the eructations. Even in such small quantities, it is not improbable that it may exert a deleterious influence both upon the nervous system and upon the blood; for it is a powerful poison, in its action somewhat resembling hydrocyanic acid, though not so strong. It destroys ferments, and robs the blood corpuscles and the seeds and roots of plants of their power to decompose peroxide of hydrogen. This gas is rarely generated in the intestine in such a quantity as to give rise to symptoms of acute poisoning, but it has sometimes this effect. It seems, probable, however, that the substances, both gaseous and solid, formed in the stomach and absorbed from it, are, upon the whole, less poisonous in cases of indigestion than those which are produced lower down in the intestinal canal. The mere omission to evacuate the contents of the bowels at the usual time, will lead to headache in the course of the day. No doubt such headache may, in part, be due to the nervous irritation caused by the fæces, but it is also in part due to absorption of fæcal matter or some product of fæcal matter.

Incarceration of the Placenta at Full Term.—Dr. G. W. H. Kemper, in the *American Practitioner*, November, 1880, alludes to the infrequency but evils of this dangerous and troublesome condition. He thinks it arises from two sources—uterine and placental; and each of these may be subdivided under two heads, as follows: 1. Uterine—(a) irregular contraction; (b) atony or inertia. 2. Placental—(a) excessive volume; (b) morbid adhesion. These varieties may exist singly, or two or more of them may be associated in a given case. The various forms of irregular contractions of

the circular fibres of the external and internal os, and the still more rare contraction of the central fibres of the body of the uterus, constituting true hour-glass contraction, often exist. He is persuaded that this state is often the result of improper treatment in the second stage of labor, such as the unnecessary or injudicious use of ergot, and a failure to follow down the receding uterus as the body of the child is expelled, and thus uniform contractions of that organ are not secured. The second cause of uterine failure to expel the placenta, namely, atony or inertia, is also a condition often brought about by neglect in the second stage of labor. This condition usually follows a tedious labor, which should have been abbreviated by the timely aid of the forceps. In such cases, the uterus is simply in a state of exhaustion, and is incompetent to the task of casting off the placenta. Excessive volume—the first-named placental cause—will rarely give trouble, as the difficulty is usually easily overcome. He is opposed to using two ligatures in tying the cord, as the use of one will allow some bleeding from the placenta, through the cord diminishing the size of the placenta. Morbid adhesions may be due entirely to disease of the placenta, or may partake, to some extent, of a uterine source. Morbid adhesion is the most troublesome form that we meet with of incarceration of the placenta. It is rendered more so from the fact that we possess no prophylactic. We may suspect morbid adhesion if the uterine tumor is not globular in shape, indicating a more prominent point at the site of the adhesion. We may suspect and expect adhesion if the same trouble has existed in former labors. The writer deals with the treatment at some length, and quotes the views of a number of prominent writers. As an epitome of the subject, he submits the following conclusions:

A very large majority of the cases of placental adhesion are amenable to treatment. Although comparatively rare, yet occasionally cases of adherent placenta do occur, which resist our best efforts for its detachment. The physician is not justifiable in leaving such a case unless, after using milder means, he introduces his hand into the cavity of the uterus and makes proper efforts to detach and remove the placenta. Having done this much, and his efforts proving unavailing, he is not censurable for his failure. *Post-mortem* conditions confirm that assertion. A very guarded prognosis should be given. A woman, with the third stage of labor incomplete, is always in a critical condition. In the treatment, the words of Blundell are true wisdom: "Leave the placenta in the

uterine cavity if it cannot be removed without the risk of bruising or lacerating the uterus—not because it is not an evil to leave it there, but because to leave it in the uterus is a smaller evil than to abstract it with violence; and we had better abide by the smaller evil than to expose ourselves to the greater evil—that of lacerating, bruising and killing.”

Book Notices, &c.

Acts of the Legislature of Louisiana, Establishing and Regulating Quarantine for the Protection of the State; Organizing and defining the Powers of the Board of Health, and Regulating the Practice of Medicine, Midwifery, Dentistry, and Pharmacy: also Rules and Regulations of the Board of Health of the State of Louisiana, and Health Ordinances of the City of New Orleans. By JOSEPH JONES, M. D., President of the Board of Health of the State of Louisiana, New Orleans. 8vo. Pp. 97.

These “Acts” have been “collected and classified, in accordance with a resolution of the Board of Health of the State of Louisiana,” adopted September 2nd, 1880, and will serve as a guide for a like collection in other States. Louisiana shows herself, by these “Acts,” to be more advanced than any of the Southern States, unless we, possibly, except North Carolina, which has a State Board of Medical Examiners that is thoroughly competent, and desirous to advance the true cause of Medicine. We are advised that there is not known to be, in the entire State of North Carolina, a practitioner of *any exclusive* school of practice. Louisiana is making headway under the guidance of her leading professional men.

Diet for the Sick. By J. W. HOLLAND, M. D., Professor of Materia Medica, Therapeutics, etc., University of Louisville, Ky. 1880. John P. Morton & Co., Louisville, Ky. 16mo. Pp. 68.

This valuable little book, or pamphlet, contains the points of the lectures, prepared by the author, for his college class, which were published in the *Louisville Medical News*, during August and September, 1880. While elementary in character, these medical and culinary notes contain a great many useful facts relating, especially, to the diet for the sick, and how to prepare it. This book should be recommended by

physicians to nurses and heads of families, who have to provide meals for the sick.

Cutaneous and Venereal Memoranda. By HENRY G. PIFFARD, A. M., M. D., Professor of Dermatology, University of New York, etc.; and GEORGE HENRY FOX, A. M., M. D. New York: Wm. Wood & Co. 1880. 32mo. Pp. 309.

This is a standard pocket edition of a most useful work on skin diseases, prepared by two of the best American dermatologists. It will be found of value by every practitioner in general practice.

A Treatise on Diphtheria. By A. JACOBI, M. D., Clinical Professor of Diseases of Children, College of Physicians and Surgeons, New York, etc. New York: Wm. Wood & Co. 1880. 8vo. Pp. 252. (From Publishers.)

Dr. Jacobi's experience, in his special line of practice, he states to have afforded him the opportunity of "having seen" "thousands" of cases of diphtheria. As he is an authority on diseases of children, this special experience, regarding diphtheria alone, makes every word he has recorded on this subject of great importance. Following Chapman, of Brooklyn, the writer of this notice has, for the past two years, been in the habit of using alcohol to overcome the constitutional enfeeblement consequent on the diphtheritic poison, which plan of treatment with quinia has seemed to prove curative in his hands; although deaths are reported from diphtheria after this plan of treatment has been pursued. Dr. Jacobi strongly urges the use of stimulants and iron, with chlorate of potassium, as constitutional remedies. "A baby, of one year or less, should not take more than one scruple of chlorate of potassium a day. The dose for an adult should not be more than $\mathfrak{z}\text{ss}$, or, at most, $\mathfrak{z}\text{ij}$ in the course of twenty-four hours." He emphasizes this, "because, of late, an attempt has been made to introduce chlorate of potassium as the main remedy in bad cases of diphtheria, and, what is worse, in large doses." We would be afraid to depend on this drug for several days, even in the doses he limits as allowable. His prejudices against mercury have been greatly modified, but he would recommend it in small doses; whereas, Reiter insists that its good effects are most manifest when the largest doses are given—an author to whom he does not refer, except on page 213. Regarding the tincture of the chloride of iron, "a dose of five to fifteen drops every fifteen minutes, half hour, or an hour, is indis-

pensible for a proper estimation of its effects." But we have not the space to enter into a fuller notice. We must content ourselves with the statement that this is a *practical* treatise on the subject, and should be studied by every practitioner.

How a Person Threatened or Afflicted with Bright's Disease Ought to Live. By JOSEPH F. EDWARDS, M. D., Philadelphia. 1881. 12mo. Pp. 87. Price 75 cents. (For sale by Messrs. J. A. Yancey & Co., Richmond.)

This book contains much chaff, mixed with good grain. He is so urgent about the non-essentials, that we are afraid the true essentials are not prominently enough brought out. The author has adopted the "familiar, non-professional and easily understood language," which makes him appear dogmatic, in a professional sense. If he was writing especially for patients of Bright's disease, it would have added much to the value of his hand-book, had he given a full diet table—what the patient should eat and drink, and what he should avoid. But such details he gives only incompletely. There is no wrong recommendation in the book, and this is saying much more for it than can be written of more pretentious works.

Is Consumption Contagious? And Can it be Transmitted by Means of Food? By HERBERT C. CLAPP, A. M., M. D., Lecturer on Auscultation and Percussion, in Boston University School; one of the Attending Physicians to the Massachusetts Homœopathic Hospital, etc. Boston and Providence: Otis, Clapp & Son. 1881. 12mo. Pp. 178. Price, \$1.25. (From Publishers.)

We have been much interested in reading this book; but after all, the question asked on the title page is still open to our mind. A great number of cases are given by Dr. Clapp, the histories of which would seem, at first glance, to indicate the contagiousness of consumption; but is it not as possible as his supposition that, by the close and intimate association of a husband and wife, or of a child and parent, and the continued anxious attendance of the one, at first, healthy party upon the other diseased party, that finally much the same habits of living are acquired on the part of the attendant as are most generally followed by the patient? Good appetite for meat food, especially, and a healthy digestion are the best protectors against consumption. But when anxious solicitude comes as the result of prolonged illness of wife, husband, parent, etc., together with close confinement to the

sick room, appetite leaves, and indigestion is common, and depression of spirits follows. If there be any tendency to consumption, what more favorable circumstances for its development! We have not the space to discuss the question; but we would cordially commend the subject and the book to the attention of every practitioner of medicine.

Ophthalmic and Otic Memoranda. By D. B. ST. JOHN ROOSA, M. D., Professor of Ophthalmology, University City of New York, etc.; and EDWARD T. ELY, M. D., Surgeon to Charity Hospital, etc. Revised Edition. New York: Wm. Wood & Co. 1880. 32mo. Pp. 298. (From Publishers.)

This is purely a synoptical work—a sort of dictionary of ophthalmic and otic science; and well enables the student to follow his lecturer, or serves to refresh the memory of the practitioner who is in a hurry, or who has to study his case while in his buggy. It is neither intended, nor does it in reality supply the place of the larger books on the subjects of which it treats. Unless a doctor has some information beforehand, regarding eye and ear diseases, this little book will not be of material service. An appendix gives a number of useful “odds and ends.” Then comes a glossary, which gives derivation of words. A full index completes the book. We can understand how a comparatively few of the profession may have need for such a summary book; but we hesitate to recommend it, except to those whose necessities compel them to “cram.”

Manual of Medical Jurisprudence. By ALFRED SWAINE TAYLOR, M. D., F. R. S., etc. Eighth American Edition, from Tenth London Edition. Edited with Additional Notes and References, by JOHN J. REESE, M. D., Professor of Medical Jurisprudence and Toxicology, University Pennsylvania, etc. With Illustrations on Wood. Philadelphia: Henry C. Lea's Sons & Co. 1880. 8vo. Pp. 933. (For sale by Messrs. West, Johnston & Co., Richmond.)

Taylor's Medical Jurisprudence has long since become authority on medico-legal subjects in every English or American court; and, we might add, that, in every other civilized language, the authority of this book is generally quoted and recognized. The first London edition was published in 1844—about thirty-seven years ago. Each edition has been issued, on the exhaustion of the former, rather as a perfection upon the preceding. The author has passed to rest since he penned the preface to this edition; but what he has recorded in this standard volume will live for centuries.

The present eighth American edition has been ably edited by Dr. Reese, bringing it up to the latest standard of the American courts' requirement. As compared with the fifth American edition, edited by Dr. Edward Hartshorne, in 1861, who had made, up to his time, a thoroughly useful book to American lawyers and doctors in court, the present edition is a great advance. A different arrangement, and the latest discoveries and decisions of courts are introduced.

Doctors, when called into court, often make themselves appear ignorant and silly, because they do not sufficiently study medico-legal books and decisions. Generally, they are too dogmatic in announcing their opinions, or in stating their knowledge regarding a definite case. But what further is to be expected, when it is remembered that but few medical colleges in this country have any such chair, as Medical Jurisprudence! Undoubtedly, in this day, a college is behind the requirements of the times, that does not teach its pupils the principles of medical jurisprudence.

There is no word of commendation regarding the present work, in its thoroughly revised form, that we are not willing to endorse.

The present edition, as sent us, is issued in the handsome half-Russia binding, as spoken of in the notice of Dr. Thomas' great work, on "Diseases of Women." The type is of long primer, and being larger than that used for that book, is very legible. It is a finely issued volume.

Practical Treatise on the Diseases of Women. By T. GAILLARD THOMAS, M. D., Professor of Diseases of Women, College of Physicians and Surgeons, New York, N. Y., etc. Fifth Edition, Enlarged and Thoroughly Revised, Containing 266 engravings on Wood. Philadelphia: Henry C. Lea's Sons & Co. 1880. 8vo. Pp. 806. Prices: Cloth, \$5.00; Sheep, \$6.00; Half-Russia, \$6.50. (For sale by Messrs. West, Johnston & Co., Richmond.)

In this book, we have every proof of an author who is a truly worthy practitioner, as well as a writer. Every page is characterized by terseness of expression, yet fullness of meaning. No general practitioner of medicine—since all have diseases of women to treat—can afford to be without this book, and, especially, this edition—by far the best that has yet been published. Not only is this great book the authority at present in this country, but it is, likewise, recognized in Europe. Translations of former editions have been made into German, French, Spanish and Italian; and in each of these languages a new translation is now to be made,

since there is so much more in this fifth edition than in any of the former. While there are not many more pages in this than in the fourth, or preceding edition, much obsolete matter has been stricken out of this fifth edition; and smaller type has been used to allow room in a conveniently sized volume to introduce much valuable material. We have not room in this issue for a proper notice of this book; the above general summarizing of an opinion must take the place of a more detailed notice.

A word or two as to the publishers' part in the issue of this standard book: For a book of such frequent reference, the type used in this edition is too small. While it is well "leaded," and has a genuine finish of excellence of workmanship, brevier type is too small with which to publish any standard book, requiring not only frequent reference, as to encyclopædia or dictionary, but frequent reading.

But we should add, lest our estimate of this best of all medical publishing houses in the United States be underrated, Messrs. Lea's Sons & Co. have made a "new departure" in this issue of their standard works. They now issue "certain of their standard publications in half-Russia," as is the volume before us; "and that the growing taste may be encouraged, the prices have been fixed at so small an advance over the cost of sheep as to place it within the means of all to possess a library, that shall have the attractions for the eye as for the mind of the reading practitioner." In addition, each of these standard volumes are sent the subscriber, or purchaser, in its individual pasteboard box, which insures safety from injury to the binding by carriage through the mail from the publisher or book-seller. We have no doubt, but that this effort of Messrs. Lea's Sons & Co., to please the taste of purchasers of their works, will meet with the hearty approval of the profession. Their standard works, issued in half Russia, have a *binder's finish*, sufficiently attractive to place them in the parlor as "show-books;" although, of course, the nature of the contents of many of them would necessitate their being kept on the "Doctor's shelf."

Care and Culture of Children—a Practical Treatise for the Use of Parents. By THOMAS S. SOZINSKEY, M. D. Ph. D., Author of the "Culture of Beauty," etc. Philadelphia: H. C. Watts & Co. 1880. 8vo. Pp. 484. (From Publishers.)

As the title indicates, this is a family book, intended especially "for the use of parents." If parents were to follow

more generally than they do, the practical suggestions laid down in this book, the world would be stronger, in the physical character of its inhabitants, and purer in its morals. We have examined, with interest, many of the chapters of the book before us; and while we do not know that it will prove, directly, of material service to the practitioner, it would be of indirect service to him in the education of his patients, who have charge of families. Some such book ought to be read by the heads of families; and this book we would most cordially recommend to them through their respective family physicians.

Treatise on Therapeutics. By TROUSSEAU & PIDOUX, of Paris. Ninth Edition; Revised and Enlarged, with the Assistance of CONSTANTINE PAUL, Professeur Agrégé, in the Faculty of Medicine, of Paris, etc. Translated from the French, by D. F. LINCOLN, M. D. Vol. III. Wm. Wood & Co. 1880. 8vo. Pp. 379. (For sale by Messrs. West, Johnston & Co., Richmond.)

We have already noticed the first and second volumes of this important work, which, with the present or concluding volume of the "Treatise on Therapeutics," have been issued as volumes of "Wood's Library of Standard Medical Authors." The Annotations, by Prof. Paul and the Translator, bring this third volume more fully "up to the times" than were the two preceding volumes. Volume III treats of anæsthetics, antispasmodics and anthelmintics. It is a really valuable book. This volume contains the index for this as for the two former volumes.

Practical Treatise on Tumors of the Mammary Gland, Embracing Their Histology, Pathology, Diagnosis and Treatment. By SAMUEL W. GROSS, A. M., M. D., Surgeon to and Lecturer on Chemical Surgery in the Jefferson Medical College, etc. Illustrated by 29 Engravings. New York: D. Appleton & Co. 1880. 8vo. Pp. 246. (For sale by Mr. Carlton McCarthy, Richmond.)

Dr. Gross has undertaken, in the preparation of this work, to examine anew the subject, "new formations," as they appear in the mammary gland, since modern histological researches have revolutionized our knowledge of the whole subject. He claims that the older statistics are of little or no value at the present day. This book is based upon an analysis of 997 cases of tumors of the breast, the nature of which have been confirmed by the microscope. In a practical point of view, the chapter on diagnosis is the best essay on the subject that we have ever seen. In the treatment of

cancer, he maintains, with an abundant array of facts, that the disease affecting the mammæ may be permanently relieved by thorough operations practised in the *early* stage of its evolution. Cut out the entire breast and reach ahead of the disease, by also dissecting out the axillary glands, and the fat and connective tissue connected thereto. As the wound left is an open one, simple dressings, without Listerism, he claims, are all that are essential.

PAMPHLETS, REPRINTS, ETC., RECEIVED, for which we have no room for further notice, but most of which can be obtained by enclosing a letter stamp for each pamphlet to the respective authors named.

A Treatise on Hip-Joint Disease. By J. D. ROBERTS, M. D., Magnolia, N. C. (Reprint from *North Carolina Medical Journal*, August 1880.) 8vo. Pp. 8. A first-rate paper from a first-class journal.

Primer of the Clinical Microscope. Boston Optical Works. By EPHRAIM CUTTER, M. D., Boston Mass. Published by Charles Stodder, Boston, Mass. 1879. Pp. 24. Illustrated. Price, 50 cents.

Some Practical Suggestions in the Treatment of Diphtheria. By R. J. NUNN, M. D., Savannah, Ga. (From *Independent Practitioner*, September, 1880.) Pp. 7.

Clinical Notes on Nerve Injuries. By J. H. POOLEY, M. D., Columbus, Ohio. Pp. 14.

Electricity in Medicine and Surgery, with Cases to Illustrate. By JOHN J. CALDWELL, M. D., Baltimore, Md. Price, 25 cents. Pp. 16.

Treatment of Genito-Urinary Organs, the Use of Electricity, Damiana, etc. By Same. (From *St. Louis Med. and Surg. Jour.*, June, 1878.) Pp. 8.

Report on Milk and Dairies in the City of New Orleans. 1879. THOMAS LAYTON, M. D., Chairman. Pp. 16.

Rectal Alimentation and the Induction of Abortion for the Relief of Obstinate Vomiting of Pregnancy. By WARREN POTTER, M. D., Batavia, N. Y. (From *Amer. Jour. Obstet.*, January, 1880.) Pp. 16.

Diseases of the Maxillary Sinus. By EDWARD BORCK, M. D., St. Louis, Mo. (From *Indiana Med. Reporter*, April, 1880.) Pp. 3.

Perinephritis—Remarks on Diagnosis and Prognosis. By V. P. GIBNEY, M. D., New York, N. Y. (From *Chicago Medical Journal and Examiner*, June, 1880.) Pp. 27.

Notes on Management of Orthopædic Cases. By Same. (From *Medical Herald.*) Pp. 9.

- (I.) *Fibro-Sarcomatous Tumor of the Uterus—Operation—Recovery.* (II.) *Cancer of the Rectum—Excision—Recovery.* By JOHN BYRNE, M. D., M. R. C. S., E. Brooklyn, N. Y. (From *Annals Anat. and Surg. Soc.*, Vol. II, 1880.) Pp. 13.
- Kolpo-Cystotomy by Electro-Cautery, with Remarks on Other Methods of Operating.* By Same. From *Gynæcol. Trans.*, Vol. IV.) Pp. 8.
- Time of Conception and Duration of Pregnancy.* By GEORGE J. ENGLEMAN, M. D., St. Louis, Mo. Pp. 6.
- Seven Cases of Retroflexion of the Uterus, with Peritoneal Adhesions of the Fundus in the Hollow of the Sacrum, Treated by Forcible Separation of Adhesions.* By AUG. F. ERICH, M. D., Baltimore, Md. (From *Amer. Jour. Obstet.*, October, 1880.) Pp. 12.
- A Device to Facilitate the Removal of Deep Wire Sutures in the Operation for the Ruptured Perineum.* By Same. (From *Md. Med. Jour.*) Pp. 7.
- Case of Combined Intra-Uterine and Abdominal Twin Pregnancy: The First Child Born Naturally at Eight Months; the Second Delivered Alive at Term by Laparotomy.* By H. P. C. WILSON, M. D., Baltimore, Md. (From *Amer. Jour. Obstet.*, Oct., 1880.) Pp. 18.
- Management of Infantile Eczema.* By L. DUNCAN BULKLEY, M. D., New York, N. Y. (From *Trans. Med. Soc., State of N. Y.*, 1880.) Pp. 15.
- Use of Sulphur and its Compound in Diseases of the Skin.* By Same. (From *Arch. Dermat.*, July, 1880.) Pp. 10.
- Puerperal Epilepsy and Protracted Gestation.* By L. S. OPPENHEIMER, M. D., Seymour, Ind. (From *Amer. Practitioner*, Oct., 1880.) Pp. 8.
- Relations of the Placenta to Post-Partum Hæmorrhage.* By WALTER COLES, M. D., St. Louis, Mo.. (From *St. Louis Med. and Surg. Jour.*, March 5, 1880.) Pp. 8.
- Intra-Uterine Amputations.* By Same. (From Same, Sept. 5, 1880.) Pp. 7.
- Surgical Treatment of Cancer of Rectum.* By CHARLES B. KELSEY, M. D., New York, N. Y. (From *Amer. Jour. Med. Sci.*, Oct., 1880.) Pp. 8.

Editorial.

New Professors in the Medical College of Virginia.—A full meeting of the Board of Visitors of the Medical College of

Virginia convened in this city on December 15th, 1880, to elect a Professor of Surgery, occasioned by the resignation of Dr. Hunter McGuire. Dr. J. S. Dorsey Cullen, formerly Professor of Diseases of Women and Children, and at present, Surgeon to the Richmond City Almshouse, was elected Professor of Surgery. Dr. J. S. Wellford, formerly Professor of Materia Medica and Therapeutics in the same college, was elected to fill the vacancy occasioned by the removal of Dr. Cullen to his present chair. Dr. James, formerly Registrar of the Summer Faculty and Lecturer on the Practice of Medicine in this College, was elected Professor of Materia Medica and Therapeutics, to fill the vacancy occasioned by the election of Dr. Wellford, to the chair made vacant by the election of Dr. Cullen to the Chair of Surgery. We wish the college abundant success, with its new *role* of Professors.

In the addition of Dr. James to the Faculty, we congratulate the *corps* of Professors, in that they have made a most valuable acquisition to their body. Dr. James enters the Faculty with a well known capability for his new position, combined with an energetic, independent and practical "push" about him. He has proper ideas of medical education. While we deplore the loss of Dr. McGuire, in the capacity of Professor of Surgery, as a calamity, we feel that the college may be able to recover from the shock by the prudent addition to the Faculty of Dr. James.

Professors Cullen and Wellford have been occupying their late professional chairs, almost since the reorganization of the college after the Confederate war; and their prominent official medical positions in the Confederate service, added to the practice they have since enjoyed in this community, and the honors which they have respectively won since that dreadful era in American history, make it unnecessary for us to speak further of their individual merits, regarding the positions they now occupy in the college.

Journalistic Notes.—Dr. Lunsford P. Yandell resigned his editorial connection with the *Louisville Medical News* on the issue of the last number for 1880. In losing the services of so eminent a medical authority, we are glad to know that the *News* retains the able editorial services of Dr. R. O. Cowling. This journal is a leading weekly, worthy of the patronage of the profession in all parts of the country.

The St. Louis Courier of Medicine is a monthly journal, rich in its every issue, with practical medical information. It is published by the Medical Journal Association of the Missis-

issippi Valley. Over sixty stockholders—most of them eminent physicians—are pledged to its support. The following gentlemen have been elected editors for 1881: Drs. E. M. Nelson, John Bryson, W. A. Hardaway and G. A. Moses.

Gaillard's Medical Journal, published in New York city, promises to begin the new year under most encouraging prospects. The veteran editor, Dr. E. S. Gaillard, in the conduct of his journal, shows that he has had a profitable experience, which, combined with native ability and indomitable energy, are guarantees of a successful new year.

The North Carolina Medical Journal, published in Wilmington by Dr. Thomas F. Wood, is a journal well edited, and is the medium for as much really useful medical information to the profession as any publication of the kind in the country.

The American Medical Bi-Weekly.—This journal, which was formerly published in Louisville, Ky., and which had nearly reached the close of the eleventh volume when the severe and protracted illness of the editor compelled its temporary discontinuance, is now, on his entire recovery, restored to its position among the medical journals of this country. The editor, Dr. E. S. Gaillard, having made his home in New York, the *Bi-Weekly* is now published there. The first number of volume twelve has been received. It is now a double column medical journal, larger than the *Bi-Weekly*, and is published at \$1.00 a year; the former terms being \$3.00. Its address is Box 1124, N. Y. city.

Wood's Ophthalmic Test-Types and Color Blindness Tests have been handsomely issued by the well-known medical book publishing firm of Messrs. Wm. Wood & Co., of New York. Nicely executed cards, showing Snellen's, Jæger's, Green's and Wecker's tests for myopia, presbyopia, amblyopia, astigmatism, asthenopia, etc., are published; and in the box containing these is a frame for holding any of the twelve test glasses usually used for making tests of eye affections like those named above. In addition, we find Prof. Holmgreen's "Confusion Plates," intended to illustrate the mistakes of the color blind—not for testing color blindness. Besides these things, Holmgreen's worsted color tests are contained in the box. We find also two pamphlets, copyrighted by Messrs. Wood & Co.—one entitled *How to Use Glasses, being Suggestions to Practical Opticians*, by the distinguished specialist, Prof. Henry D. Noyes, M. D., of New York city; the other *Explanatory Text to Wood's Ophthalmic Test-Types and Color Blindness*, by Dr. G. R. Cutter, Surgeon

to the New York Eye and Ear Infirmary, etc. The object of the authors and publishers seems to have been to simplify some of the most important information common to the specialist, but which is of as much value to the general practitioner as a great deal of other special information which, up to the present time, is held as the true property of the specialist. This remark is not to be construed as, in any way, reflecting upon the rightful province of those who lawfully limit their practice to certain subjects. On the contrary, we have fought their battles too often. We only mean to say that there are too many points given up to the specialist which he is as anxious that general practitioners should know as they should be to acquire that knowledge. We most cordially recommend these types, tests and glasses and the pamphlets to the busy practitioner, as, of course, to him who limits his practice to ophthalmic subjects.

Who First Discovered Malarial Puerperal Fever?—We were much interested in the recent correspondence in this journal relating to the above subject. As indicative of the judgment passed upon the evidence presented, we extract the following paragraph from a notice made of the correspondence in the *Medical Record*, December 11th, 1880:

“Some correspondence has appeared in the *Virginia Medical Monthly* upon the above topic. Dr. Hugh M. Taylor claims that the malarial puerperal fever was first described by Dr. O. F. Manson, twenty-five years ago, in the *Virginia Medical and Surgical Journal*. Regarding this claim, Dr. Theophilus Parvin writes: ‘So far, so well. But were there not heroes before Agamemnon?’ He then gives quotations from various old works, tending to show that as early as 1775 Dr. Butter wrote upon the disease in question; that in 1824 Dr. Blundell, and in 1828 Dr. Burns did the same thing. Dr. Parvin also states that the malady had long been recognized by old practitioners in the West.

In reply to Dr. Parvin, Dr. Taylor re-asserts his claims for Dr. Manson, and analyzes the alleged descriptions of the disease by older writers. On the whole, he makes out a pretty strong case for Dr. Manson. Puerperal malarial fever may have been known and treated before 1855; but Dr. Manson seems to have been the first to describe it distinctly.”

“**Notes of Hospital Practice**” is the title of a volume, edited by Dr. Samuel M. Miller, 536 Spruce street, Philadelphia, Pa., which is of great importance to every practitioner. It

contains the treatment of over 400 diseases by the eminent medical authorities in New York and Philadelphia. The remarkably large sale of the book—about 3200 copies in nine months, as we are advised by the editor—indicates its great popularity. The work is of special value to the busy practitioner whose time is so occupied as not to allow him all the current medical literature, but “who must needs keep himself thoroughly informed of all the salient points of progress in therapeutics.” The book contains 256 octavo pages, and will be mailed on receipt of price—cloth, \$2; full calf, \$2.50. See advertisement.

Correction.—In Dr. Semple’s paper, in the November No., 1880, of this journal, several typographical errors occur, which we regret. In the fifth line from the beginning of his article, on page 591, it should read “and his *left* [foot] advanced,” instead of “his right.” On page 595, eleventh line from top of page, read *Dr. J. Van Kansilier Hoff*, instead of “Vankancilin.” On page 593, eleventh line from top, read *liniment. saponis liq.*, instead of “linim. sass. liq.”

Printed Labels, Addresses, Etc.—We have been informed at the Postoffice in this city that sample copies of medical publications, etc., are frequently received here, by mail, addressed to physicians who have long since, by death or removal, ceased to be residents of Richmond. On most of the wrappers so received there is a printed address, about half an inch wide and two inches long, with a border—all apparently printed at the same place. From this circumstance it is inferred that some person, in New York or elsewhere, is engaged in the business of palming off on unsuspecting publishers and others a valueless set of names of physicians, copied, perhaps, from a Directory published before the war.

Hall’s Health Syringe has met a desideratum. In arrangement and action it is simple and complete. Combining the best points of other instruments, it embraces others not heretofore employed. The principle upon which it works causes a *continuous* stream, by atmospheric pressure, convenient for self injection. We would recommend it especially for females.

The Southern Soldier Boy is the title of a touching song, with chorus, by Father Ryan,—the music by W. Ludlow—which we have received from the publishers, Messrs. Ludden

& Bates, Savannah, Ga.; price, 40 cents. It is dedicated to the Southern mothers, whose soldier boys sleep in unmarked graves.

The Richmond Eye, Ear and Throat Infirmary was opened some eighteen months ago for the special treatment of diseases of the organs above mentioned, among the poorer classes of the city. By the inauguration of this institution, Dr. Joseph A. White has supplied a most important demand at great individual pecuniary sacrifice. The history of the Infirmary during its brief existence, amply proves its importance and necessity; and it would be a short-sighted policy on the part of the city government to fail to give the enterprise a generous support.

The Transactions of the Medical Society of Virginia for 1881 appear with this number of the *Medical Monthly*. We leave it to readers themselves to form their own estimate of the merits of the papers. The delay in their publication is in great part due to the delay of some of the authors in promptly returning their manuscripts to the Secretary. We greatly regret the fact that Dr. William L. Robinson's paper is not yet received, and hence does not appear in the Transactions. The Secretary failed to get satisfactory notes of several of the speeches made in the discussion of the subject of "Cholera Infantum." Fortunately, the subject will be up again at the next session, when it is hoped that all who have had special experience with this disease will be thoroughly prepared to take part in the discussion.

It is with pleasure that we can already confidently announce that the next session, which is to be held in Warrenton, Va., will be a great success.

Obituary Record.

Dr. Levin S. Joynes, of this city, died at his home January 18th, 1881, aged about 62 years. A full notice of his life and works will be given in our February number. A great and good man has passed to rest.

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Original Communications.

ART. I.—(I) **Pelvic Cellulitis.** (II) **Pelvic Peritonitis.** (III) **Pelvic Hæmatocele.** By JOSEPH H. WARREN, M. D., Boston, Mass.

I. *Pelvic cellulitis* generally occurs after abortion, parturition, inflammation of the uterus and ovaries, from coition, caustic pessaries, operations or direct injuries. More than three-fourths of the cases occur after parturition or abortion. It may be complicated with ovaritis, Fallopian salpingitis, endometritis and pelvic peritonitis. In fact, the line of demarcation between pelvic cellulitis and pelvic peritonitis is very difficult to define, as the former often continues and results in the latter. But I hope, in the course of this paper, to be able to give illustrations of both of these affections, which will enable us to gain a fair idea of the definition of each.

Pelvic cellulitis has often been defined as perimetritis, peri-uterine phlegmon, inflammation of the broad ligaments or sub-peritoneal pelvic connective tissue, resulting in suppuration and abscess or cellulitis in any part of the connective tissue in the pelvis. The active stage of this disease is ushered in by more or less chills and pain, re-

sulting in congestion of the tissues. Passing from the active stage to that of an effusion of liquor sanguinis, it finally ends in suppuration. Instead of passing to this third stage, it often terminates in resolution, or it may extend into a phlegmonous and sloughing mass. The seat of cellulitis is the areolar or connective tissue of the broad ligaments on one side or the other. In the large majority of cases, either a favorable resolution or a termination by suppuration may be expected in the course of two or three weeks; it rarely becomes chronic. When it does become chronic, it may continue to suppurate from one abscess, or a series of abscesses, for months or even years—reducing the patient very greatly—to terminate in complete exhaustion and death. These purulent inflammations may discharge through the abdominal walls, saphenous openings, pelvic viscera, as the bladder, rectum, vagina, rectum, urethra and uterus, through the floor of the pelvis near the anus, pelvic foramina—for example, through the obturator or sacro-sciatic—or from the pelvic roof into the peritoneal cavity.

I remember a case where the pus ran upward and forward, and discharged over the great trochanter, and was mistaken for a lumbar abscess by the physician. I had one discharging in the iliac region; but generally the pus breaks forth into the vagina or rectum, and only very rarely into the peritoneum.

The symptoms of this disease, when it occurs after parturition, are chills, increase of temperature, fever, pain, menorrhagia, painful evacuations—almost resembling the tenesmus of dysentery in some cases—more or less thirst, occasional profuse perspiration, and, in extreme cases, delirium. But all of these symptoms are greatly modified in many cases; for example, the temperature may be raised very little, and yet the more serious symptoms may eventually follow. The physical signs, upon introducing the finger into the vagina, will be found to be these: The parts are inflamed, swollen, sensitive and velvety to the touch, with local points of great sensitiveness on one side or the other of the uterus. From this congestive stage, it passes to a state of effusion, when tumors, from the size of a nut to that of a mock

orange, may be detected generally in the broad ligament, on one side of the cervix or in the walls of the vagina.

If, by manual examination, we pass the finger to the cervix and into Douglas' cul-de-sac, we can generally make out readily these tumefied effusions, which, as they pass into suppuration, displace the uterus, pushing it far from its normal position. In whatever malposition it may be found, it so remains, as it is bound down by adhesive plastic lymph. It may be confounded with a large stone in the bladder, fibrous tumors, pelvic hæmatocele and peritonitis.

The result of cellulitis may be very disastrous in destroying the ovaries by suppuration, resulting in atrophy, permanently displacing the uterus, leaving the patient incapacitated for her usual physiological functions, and resulting in sterility, menorrhagia, amenorrhœa and dropsy. To illustrate the treatment, I will introduce the following cases :

CASE I.—Over 25 years ago, I saw my first case of cellulitis, in an adjoining town—now a city—a Mrs. L., age 30, well-nourished and otherwise in good health. She had been confined with her third child in the spring, some three months before I saw her. She was under the care of the modest and good late Dr. Edward Warren; and I know that all will agree with me when I say that he was one of the best men to meet with in consultation. He left her in my care when he went to Europe. Dr. Warren had been treating the case as one of low phlegmonous form; his treatment had been more expectant than otherwise. Only good, generous diet, and iron in some form had been prescribed, but no washes or irrigation had been applied to the vagina. Upon examination, I found the vagina at the cul-de-sac of Douglas well filled, pressing the uterus upon the bladder with such force that the capacity of the latter organ was much diminished, and micturition was very frequent from this cause. The urine was loaded with urates, phosphates and lithic deposits; and the rectum was compressed, so that it was with very great pain that she succeeded in getting a passage, and even then only by an injection, on account of the pressure from this great, soft, fluctuating tumor, bagging down, and, in appearance, not unlike the distended milk glands of the brooding mare, feeling clammy and boggy. Having a few days before been in consultation with the late Dr. J. C. Warren, who told me it should be the highest am-

bition and motive of a good surgeon (and he hoped I would always remember it) that wherever pus could be detected by the sense of touch, or by an exploratory incision, to open freely and let the pus escape, I, with an exploring needle, and what was then called a devil's claw at one end, opened into the tumor, and pus followed the needle in a fine stream. I now proceeded to open the fluctuating tumor in two of the most prominent and pointing parts. Quantities of pus of the most offensive character passed off. After evacuating this enormous accumulation, the bladder and rectum resumed their ordinary functions. A solution of chloride of zinc was thrown up freely two or three times a day, and thus the vagina and other parts were kept free from the accumulation of pus in any of their folds.

Internally, we gave iron and quinine; externally, over the hypogastric region a strong tincture of iodine was freely applied. The same tincture was applied to those parts of the vagina where the abscess had penetrated, and to the cervix of the uterus. Later, because a hardened cicatrix had formed, the ointment of mercury with ceratum simplex was applied by means of cotton wool soaked in it, and allowed to remain until removed from day to day. It is astonishing how much old callosities and hardened tissues will soften when this ointment is applied. (If one is desirous to see the effects of it, let him apply it to hardened corns or bunions on the feet.) With this treatment, under slight variations, the patient fully recovered, and after a painful sickness of six or eight weeks, became pregnant the following winter, and I delivered her at full term. She rapidly recovered from her confinement, and no cellulitic trouble followed.

This case illustrates those forms of the affection where little constitutional trouble preceded the attack of the cellulitis.

CASE II.—Mrs. P., confined with healthy child in natural labor, was taken after several weeks with great pain, chills, high temperature, and quick and dichrotic pulse—the blood in the arteries feeling like a stream of water in a rubber tube, with a perceptible jerking, as if the stream were cut off by a valve. Upon examining the uterus, I found it highly inflamed, very irritable, with the os eroded. There was great, throbbing pain in the rectum, extending into the iliac fossa. Dover's powders, administered internally, free irrigation of the vagina and rectum with warm water and laudanum, \mathfrak{zj} to the pint, ten or twelve leeches in the vicin-

ity of the rectum and over the pubes, was the treatment. This giving great relief, the affection, after a week, terminated in suppuration—the abscess becoming spontaneously ruptured in the left fossa. The patient continued to improve, but was left with a sinus, which I injected with Lugol's solution of iodine; but still the sinus oozing a watery, limpid fluid containing a small amount of pus, I finally succeeded, after a few injections of corrosive sublimate, grs. ij to water ℥viii, in healing it up. The after-treatment was similar to that in the previous case. I should add that when this sinus was injected, the fluctuation of the fluid could be felt on the left side in the vagina, bagging down on the left and anterior part of the uterus, and extending around this latter organ in a fold of the vaginal walls. At this point, I made a small puncture, so that the water injected externally into the sinus flowed freely into the vagina.

If any one wishes to ascertain whether they have any amount of perseverance, they can most fully prove it by treating one of these sinuses in the left fossa passing along the broad ligament into the vagina, as this will put them to all of their resources to close up these weeping issues.

CASE III.—Miss A., age 18, had been in poor health for over two years. She had a fall from a runaway horse, although I cannot at this moment recall the exact particulars. At any rate, she had met with an accident, from which she dated her illness. She failed in health, and suffered great pain, for which she had been treated by many of the better portion of the profession, who considered her case one of dysmenorrhœa and chlorosis. I was called to see her in convulsions a few hours after she had been taken with her menstruation. These convulsions, as I then learned, continued usually about twenty-four hours, and were of a hysterical character. I did not then deem the case so grave as I afterwards learned to do, when the continuance of the convulsions, every day or two, for some length of time, led me to think that all the pain and suffering was not wholly dependent upon the menstruation, since after their cessation she continued to suffer very great pain around the uterus and ovaries, with violent bearing-down pains, and the recurring pains of metric inflammation. She had also more or less severe chills, which she said had been considered nothing more than nervous chills. The pulse and temperature keeping up, taken in conjunction with these other symptoms, I was led to request an examination of the uterus, which, in

these days, was quite a formidable affair, as the use of the speculum and vaginal examination was much more sparingly resorted to then than at present.

After leeching and all the known anodynes had been exhausted, I examined and found the vagina hot, dry and painful to the touch, and filled almost completely with a fluctuating collection of pus, by several small tumors of the size of a horse-chestnut—the largest being on the posterior aspect of the vagina, about midway of the uterine neck. Into this, I thrust the devil's claw, above mentioned, into the most prominent and fluctuating point. Out came laudable pus. Upon making a free incision, a pint of the vilest and most offensive liquid and pus passed off, giving instant relief to the patient. After this, all the other abscesses were opened, and with a like result. She went through the various stages of recovery until perfect health was restored to her in about a year and a half.

This case had been looked upon by her family as unfavorable in the extreme. Her mother, a few months before, had died of phthisis pulmonalis, and the family thought, and had been given to understand by the physicians in charge, that the daughter was drifting into her mother's disease. Her case was considered so desperate by her grandfather, the late Hon. Daniel Webster, whose favorite grandchild she was, that he said he would rather make a dozen Northwest Boundaries or Ashburton Treaties to extend to and include No Man's Land, than to hope that any one could accomplish anything for her low condition—much less to restore her to health. I speak of this to illustrate how very few years it is since gynæcology began to assume anything like a systematic or scientific form in the investigation of the diseases of women. This case was of far greater interest then than now; indeed, a similar one, at the present day, would be hardly noticeable, as out of the ordinary every-day practice; and the present scientific mode of arriving at a correct diagnosis would have been brought into play long before these grave symptoms had scourged her with such acute mental and bodily sufferings.

CASE IV.—Princess T., age 25, German by birth, confined in the summer of 1858 with a large, healthy child; instrumental delivery, and made slow progress in recovery. Some

ten or twelve weeks after this, I was called to her, and found her suffering from great prostration and loss of strength. She had chills; temperature not very great; slow and weak pulse; constant pain all through the pelvic organs when awake, with stabbing and throbbing pains in the rectum, extending at times to the bladder, accompanied with frequent micturition and acute cystitis. She expressed herself as completely worn out, with pain and frequent micturition, which her physicians had told her was hysterical, and which would leave her as she gained strength. This was, to all common appearance, the most natural diagnosis. She was very reluctant to have a proper examination made; so I compromised the matter satisfactorily, both to her and myself by passing a suppository of conium and hyoscyamus up the vagina. In so doing, I took the opportunity of making a pretty thorough examination of these parts, and discovered the source of all her ills in a severe cellullitic inflammation.

The urine was loaded with mucus and a purulent pus, as an abscess had broken and found its way into the bladder by some inconceivable way, near the left ureter. A fluctuating abscess was on the right side, about three-fourths of an inch from the os, upon the side of the cervix externally. This and a few other smaller abscesses about the cul-de-sac of Douglas I opened as I found fluctuation in them. I dilated the urethra fully, and washed it freely with warm water, borax and a few drops of laudanum. Otherwise, the treatment was similar to the cases already related.

After six months, she regained her usual health, and, with the sweetest of angelic smiles playing on her lovely face, she embarked for her Fatherland. She persisted in affirming that all her troubles arose from suppressed lactation; and although we do not now feel, as many of the older writers did, that this was the *direct* cause, yet, may we not reasonably suppose such to be the fact, in rare cases, with some show of reason?

We find under the head of suppressed lactation that the diseases under present consideration have been most accurately described by many of the earlier authors upon midwifery and diseases of females. Their treatment, too, was similar to that of more modern practitioners, with the exception that quinine and other tonics were more sparingly given. One cannot help being highly benefitted by reading Smilie, Perzos *Sur les Depoti Latteaues*, 1759, Guisale,

Church, Gooch, Tyler Smith and many others we could name.

CASE V.—Mrs. G., age 38, subject to hysteria at the appearance of every menstruation, mother of four children, and never well after the birth of her last child, which was a female and of natural labor. When she first came under my care, she was suffering from metro-endometritis, having the most profuse leucorrhœal discharges, without exception, I ever saw. She had been under my care several months, when, upon my visit to Europe in 1857, I left her in the care of my friend—the late Dr. Brown, of Newton. Several weeks before my arrival home, the Doctor had applied a solid stick of nitrate of silver and left it in the uterus—whether by accident or design, I never knew, or if I ever did know, I have now forgotten it. She was attacked with severe chills and fever, terminating in severe cellulitis. The abscesses formed about the posterior part of the cervix, and opened spontaneously into the rectum. This discharge continued for months. The large abscess forced the uterus down and firmly held it by many adhesions to the vagina, which drew it down and to one side nearly to the external surface. I broke up these fibrous adhesions sufficiently to relieve the pressure from the neck of the bladder. Still these ligamentous bands, with the great contractions which had taken place in the broad ligaments, drew the uterus to the left side of the vagina. This inflammation was so extended as to include both ovaries—all the parts remaining fixed in one position. To the touch, the vagina felt much like chamois skin. So completely was the encasing of the ovaries that menopause was completely established, as she ceased to menstruate from that time forth.

The treatment was similar to that adopted in our former cases. After a continued use, for upwards of a year, of pessaries immersed in mercurial ointment, the vagina appeared normal to the touch, but narrowed and contracted in several places.

CASE VI.—Mrs. B., age 29, was, when six months after a natural confinement, attacked with slight fever, chills and increase of temperature. She complained of uneasiness through the pelvic region, but not of a very severe character. Quinine and other tonics were prescribed for her, together with weaning of the child—hoping that she might thereby be benefitted. Her case dragging along, however, for weeks, a thorough examination of the vagina and uterus was made.

There was sub-involution of the uterus, and, by manual examination, a large abscess, filling almost the whole cul-de-sac of Douglas', was detected. The application of hot douches to the vagina and rectum was recommended, with large doses of quinine, and sufficient opium to produce rest. The abscess broke on the right side in two places. The patient now complained of great pain in the right ovary, where there seemed to be an abscess which, after several weeks of suffering, terminated by resolution. At the point where the abscess had ruptured, the parts assumed an unhealthy and sloughing condition. A severe cough now setting in, together with the fearful drain upon her system from the abscesses, caused her gradually to sink away, until in about three months she died. All symptoms pointed strongly to scrofulous diathesis.

CASE VII.—This case I shall dwell upon at considerable length, as showing the marked difference between pelvic cellulitis and pelvic peritonitis. It also illustrates how much suffering a woman of frail and delicate organization can endure, and what a vast amount of disease such an one can survive. As I recall the case, it was one of the most pitiable of all the diseases of women that I ever saw among the thousands I have seen and treated.

Mrs. H., age 36, was confined some two years before I saw her, with a very large male child. All went well after the confinement for five or six weeks, when she began to have chills, increase of temperature, nausea and vomiting. She was thought to have, and was treated for gastric and enteric fever. Her life dragging on for many weary weeks and months, her case had passed into what her attending physician—the late Dr. Bartlett, of blessed memory—thought to be a severe case of dyspepsia and marasmus. When I was called to take charge of the case, she was very much emaciated, suffering from severe neuralgic pains through the pelvic region and lower part of the spine. Her appearance was the most strikingly spiritual and beautiful, with extreme pallor—in fact, she seemed almost bloodless. All the outlines of the internal organs could readily be traced through the thinned parietes of the abdomen. I should judge her weight to have been about fifty pounds.

She took the very smallest amount of nourishment one could imagine it possible for a person to subsist upon. She had sleepless nights and constant pain in the region of the

lumbar and sacral vertebræ, extending to the coccyx. The hips, as well as several of the vertebral spines, were nearly through the skin. There was a slight nervous cough, palpitation of heart; menstruation had almost entirely ceased—at best, it was scanty and nearly colorless. Micturition was painful and frequent, urine loaded with phosphates, mucus and pus. Upon examination of the uterus and its appendages, there was found great tenderness over both ovaries, and all through the hypochondriac region. The uterus was enlarged, with great elongation of the cervix, was carried forward and laterally to the right side, filling Douglas' sac. On the left side of the vagina there were numerous small abscesses about the size of small cranberries, and not unlike the appearance of this berry upon its lighter side where it is shading into the red. Some of this series of abscesses had shrivelled up; others were discharging sanguineous pus in small quantity; while in others, absorption was going on with a collar of vaginal mucous membrane closely enveloping the uterine neck. This fold was much thickened, and felt like the end of a thick glove. The external and internal ostia were patulous and yielding, and the intervening uterine tissues were much softened.

The uterine canal was studded thickly with granulations and ulcerations—in size, from that of a large shot, to that of a mustard seed, filled with a thick, grayish fluid. When this was washed out, the appearance of the tissue was that of a fine, velvety surface, extending to the anterior and posterior lips.

To add further to her discomfort, these discharges had almost denuded a large portion of the vaginal canal of its mucous membrane. For this a decoction of opium, white pond-lily root, and bi-borate of soda was used freely as an irrigation. Later on, tar-water and chloride of zinc were used. Tincture of iodine was applied externally and internally. Scraped raw beef and champagne were freely given; suppositories of hyoseyamus, bismuth and cocoa butter were inserted into the vagina at night. Abscess after abscess opened spontaneously, or were punctured as they showed fluctuation and signs of opening. They seemed to form upon the broad ligaments, and fear was felt that they might burst upon the peritoneum. On account of the deficiency of adipose tissue, we could see darkish outlines defining the borders of the largest of these abscesses; and wherever the sun could be brought to bear upon her body, it gave transmitted light through her body, looking semi-opaque. In fact, it was one of the most remarkable cases of emaciation I ever saw.

As I have already said, quinine, iron and many other tonics and stimulants were used. A compress and bandage, made to fit her form, were applied after the evacuation of the abscess. The largest of the abscesses, like many others, broke into the rectum and vagina. When the one over the right ovary disappeared, the bandage and compress were drawn more closely, and we made more rapid progress toward recovery; which, however, occupied nearly a year and a half—complicated with more or less neuralgic pain in the pelvic region. This pain continued even after she was able to ride out in the air. I do not think she fully recovered from these pains for upwards of two years, as, during all this time, she was constantly complaining. At the beginning of the third year, she had sufficiently regained her health to cohabit again and conceive; and at the full term of pregnancy, I attended her, and delivered her of a healthy female child of $7\frac{1}{2}$ lbs. From this confinement, she rallied well and enjoyed most excellent health for a year or more, when, at some reception, she took cold and had pneumonia. This prostrated her for months, and some of her old metric troubles again attacked her, with a neuralgia of the ovaries. After a long time, she began slowly to regain her usual health. Sometime during the latter part of the year, she again became *enceinte*; but the exhaustion of the uterus was too great to retain the fœtus, and expelled it by aborting, after a few months. From this, she recovered sufficiently to make a few calls; but now she received an accident, by falling upon some stone steps of her residence, which resulted in a pelvic peritonitis. This fall injured the lower part of the spine very severely, so that she could not move without the greatest pain, which extended up to the fifth lumbar vertebra. Incontinence of urine followed, and continued for a short time. There was great pain through the pelvic region, amounting almost to agony, with swelling and flowing of a thick, dark menstrual fluid, filled with lymph.

The floor of the pelvis was hard and felt like a chamois skin drawn over a board. Much effusion of lymph extended to the broad ligaments and ovaries. This state of things was attended with a bagging down of the vaginal walls, which were like a hardened sponge filled with serum. Some exudations of lymph at the most prominent parts took place. I passed a dull-pointed silver probe into these various points of exudation wherever the tissue was softened enough to allow it. I think this operation helpful in stimulating absorption into a more active resolution in these cases of

pelvic peritonitis. It should, however, be applied late, and not until the disease is fully advanced. I painted the pelvic surface with a strong tincture of iodine internally and externally, and, later on, I used suppositories of calomel. Iron, quinine, and bromide of soda and potash were given internally. The bromide of soda, for some inexplicable reason, did more good in her case than any other agent, unless I except the quinine. I consider this beneficial result to have come, not from the bromine, but from the soda; in fact, I believe we should have had just as good results from the carbonate or borate. I have noticed the same peculiarity in other cases, particularly in a case under my care, now recovering from pelvic peritonitis.

The latter case was attacked with pleurisy, followed by pelvic peritonitis some six weeks ago. My patient slowly recovered from this peritonitis, and a few years afterward fell sick in Florence of a most severe form of Roman or intermittent fever. For this, I gave her quinine; and knowing her toleration of this drug, I administered a great quantity before effecting a reduction of the fever. I followed this with the iodide of potassium and stimulants. She made a rapid recovery, and was freer from neuralgic pains than I had ever known her. There was no return of her uterine troubles.

CASE VIII.—This case will serve to illustrate pelvic peritonitis. Mrs. S., age 27, was afflicted with a mania for alcoholic stimulants during her menstrual period. In one of her fits of intoxication in 1870, she drank 5ij of tincture of iodine, mistaking it for tincture of aloes. I spent the night pumping starch water up the rectum and down the stomach, and administering emetics. This I continued so long as the starch water came away blue or purple-colored. But she had received so strong a dose of the iodine that we had as a consequence the most severe gastro-enteric inflammation that I ever saw to recover. This extended to the uterus and its appendages; and we had a lively time, I can assure you, of gastro-enteritis, general peritonitis with pelvic peritonitis all combined. But she proved equal to the emergency in all kinds of gastric and pelvic forms of inflammatory action. What a sufferer! It almost makes me shudder as I recall her case, and write upon it. One would think, allow me to say, that she would never have touched the intoxicating cup again. But, alas, what a monster alcohol is. It will reduce the strongest man and fairest woman lower than the brute. This patient recovered only to continue her intoxication, or

at least she had continued it until about a year ago; at which time, I knew her to be either sick or intoxicated the greater part of her time.

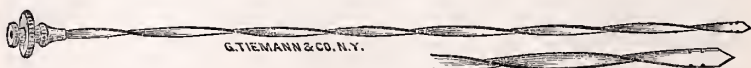
But to our case. The inflammation extended all through the pelvis; not an organ seemed to escape without some inflammatory action, such as cystitis, ovaritis, peritonitis, and vaginitis. The acute attack was followed by a pouring out of lymph from the roof of the pelvis, which became as hard as a deal-board covered with parchment. Much lymph poured out between the uterus and bladder into the vagina. Finding a soft spot from which exuded considerable lymph, I passed a fine aspirating needle into it, and resolution proceeded favorably. I administered corrosive sublimate, and applied an ointment of the same until I slightly affected the gums. Her sensitiveness to the drug was surprising. I accounted for it by the quantity of iodine which she had prescribed for herself. This, with quinine, chloral and opiates enabled her to weather the attack, probably because of an inherited strong constitution. She continued, however, to suffer from a neuralgia of the uterine organs.

How to overcome this neuralgia following pelvic cellulitis or pelvic peritonitis, I wish some one of the profession would inform me, for all the cases of this kind that I have ever seen are afterward afflicted with this painful neuralgic affection.

Some six years after this attack, she, in one of her intoxicated fits, fell down a long flight of steps, bruising and cutting herself badly. She now had an abscess of the right ovary, continuing for a long time, and becoming pelvic cellulitis, extending into the vagina, coming to a point in Douglas' sac. It was opened first with a fine aspirating needle; afterwards I made a more extended opening, and evacuated the contents freely. The ovarian abscess became cystic, and its fluid contents being absorbed, resolution took place. She now had an increase of neuralgic pains all through the pelvic region, but more severe on the right side. Dr. O. W. Doe once saw this case with me, and thought (as well he might, or any other) she must be a prostitute, as the parts, from excessive inflammatory action, had come to resemble those of that class who have led a life of debauchery and ill-fame, as we see them in our hospitals and other public institutions. I should mention the fact, that she had in years previous aborted many times; so the parts were well hardened inward before this inflammatory attack.

For this severe neuralgia, quinine, chloral and opium were prescribed in quantities sufficient to give relief. Since this period, she has been attacked with nephritis and cystitis, accompanied by chills and fever, which were so regular and persistent as to make one think her suffering from the effects of malarial fever.

I have now a case of pelvic cellulitis under treatment in a lady aged 42. At my first examination, I found the vagina filled with a large abscess, and the uterus pushed far forward and downward. One large abscess had, soon after my visiting her, spontaneously broken. At another pointing place, I pushed in the aspirating needle here figured.* After aspi-



rating and finding pus, I enlarged the opening and thus evacuated the pus more freely. Shortly after this, she took cold in a bath-room, and pelvic peritonitis followed, from which she is, after three weeks, rapidly recovering.

In all these cases of abscess, and on the subsidence of the acute inflammation, of pelvic peritonitis, it will be found that besides being very pleasing to the patient, a good fitting compress and bandage will very materially aid in resolution and favorable termination of the troubles, as pressure continued seems to be absolutely needed. I would advise, also, the application of tincture of iodine, externally and internally, applied freely with a brush; and turpentine, by wetting flannel or spongio-piline in it, and applying it to the external parts. Sometimes, in pelvic peritonitis, flax-seed poultices are of great benefit. To these poultices, laudanum may be added to relieve the pain. Pounded ice may be applied in a rubber bag or bladder at the beginning of the acute attack. Suppositories of opium, chloral, hyoseyamus and belladonna are useful to alleviate pain in the vagina. Irrigation of the vagina with hot water, to which may be added, if desired, some disinfectant agent, will be useful. When the abscesses have supplicated into the vagina, injections of red wine, with a solution of thymic acid (5j to the pint), will be found very beneficial in bringing about a favor-

*For a full description of this and many other instruments, see my work on Hernia.

able resolution and healing of the parts. Internally, we resort to opium, quinine, iron, iodide of potassium, bromide of potassium or soda; and I should judge that pilocarpin, in doses of one-tenth to one-fifth grain, once every three hours, might be of advantage in the beginning of the attack to reduce the chills and fever. Could we see the patient early enough, I think that with this remedy and quinine, together with leeches over the pubes, the cellulitis and peritonitis might be cut short. In fact, I think I have known several such results during the last two or three years in my practice.

It will be seen by these cases how easy one of these diseases may pass into the other—cellulitis becoming pelvic peritonitis. The marked difference between the two is the hardening of the roof of the pelvis, and the wedging in, and firm adhesion of the uterus in a firm, unyielding mass, from the abundance of lymph poured out in the latter disease. Another difference is that, in cellulitis we have pus and abscesses occurring much more frequently. These, then, will be our distinguishing marks of diagnosis between the two diseases. I have in mind a pelvic peritonitis in a case of miscarriage at four months, in a young woman of about 20. The adhesions bound the uterus in a transverse direction, where it remains to this day. But such lasting adhesions are unusual.

Pelvic or Perimetric Hæmatocele.—I have never seen a case of this except when occurring after child-birth; but that it may occur from other causes I am well aware, such as sudden emotions, fright, exhaustion, accidents of various kinds, and from over-working after an illness of any kind, or from rupture of one or more small blood vessels. A most excellent article upon this subject, by Dr. George T. Harrison, of New York city, can be found in the *Virginia Medical Monthly* for November, 1875. The sanguineous accumulations generally take place in Douglas' cul-de-sac, extending often from this into the peritoneal cavity, or into the connective tissue about the broad ligaments, or at points anterior to the uterus, and rarely into the connective tissue of the pelvis.

The symptoms are, pain about the pelvis, with disagreeable sensations and excruciating pain all about the lower abdomi-

nal regions, with faintness, nausea and vomiting, and general shock from loss of blood, cold extremities, pinched features and expression of great suffering. The skin is covered with a cold, clammy sweat, respirations quickened, and pulse thread-like and hardly perceptible at the wrist. A tearing and burning sensation is felt where the effusion of blood is occurring in the parts, and a collapse similar to cholera results. The bladder becomes highly irritable, and frequent micturition takes place. If the pressure of the effusion on these parts be great, there are such leading and urgent symptoms, in most of the cases we see, as to be readily diagnosed from almost every other uterine affection. We can generally be greatly assisted by discovering the tumefaction of the parts distended with blood.

As the case passes on, in a few days, the parts become extremely irritable and tender all around the points of effusion, whether into the peritoneal cavity or connective tissue. This tenderness will greatly help us in our diagnosis. The tympanitic condition of the abdomen and tender sensitiveness of the vagina, restlessness of the patient, limbs flexed upon the abdomen, and the general history of the attack will complete the tale, together with the customary bi-manual examination. We can thus make a differential diagnosis between pelvic cellulitis, peritonitis, accumulation of cystic fluid, uterine and fibroid tumors. I have noticed, also, one thing very common among these cases, and that is a severe burning and a tenesmus in the rectum.

The prognosis is very unfavorable should the blood find an outlet into the abdominal cavity. If it should, on the contrary, break into the rectum or vagina, recovery may take place. Not long ago I saw a case of hæmatocele following cellulitis that occurred after natural child-birth. The blood became extravasated around the seat of the abscess, which continued to discharge for a long time previous to each menstruation, when it would apparently dry up only to discharge again just after menstruation. Cases of cellulitis often run into hæmatocele, and death occurs from internal hæmorrhage.

To illustrate, I will mention the following case:

Mrs. B., age 44, was, after the birth of a still-born child,

several months before I saw her, taken most violently with the symptoms I have mentioned above. A large extravasation of blood followed; soon afterwards, a smart but not extensive cellulitis developed. The tumefaction was low down in Douglas' sac, and finally broke into the rectum and passed off.

This tumor had been forming steadily for a long time before its rupture. The patient was treated with opiates, injections of hot water, iodide of potassium in large doses, quinine and iron; tincture of iodine was applied to the affected parts, and she finally recovered, but remained for a long time very pale and anæmic, with great prostration of strength.

About two years after her hæmatocele, she began to have the turn of life. This was with her a very trying affair, and she remained for years an invalid. Nothing but time, patience and pluck ever brought her back to a fair condition of health.

Another case is Mrs. F. She met with an accident by falling from a carriage some three months after a natural labor. She informed me that she felt something give way at the time of the accident; and that soon after arriving home she felt the burning, tearing pain through the pelvis, which she said was relieved by pressing hard up against the perineum and anus. There was a large accumulation of blood, filling up the cul-de-sac, and extending so completely around the uterus that the latter could be made out only by penetrating into the centre of the tumor which puckered up around the os, looking much like the umbilicus.

Her pains were of a most violent nature, with all the accompanying symptoms of hæmatocele. She lost for months more or less blood by repeated hæmorrhages. These were controlled by ice, tannic acid, by injections of extremely hot water, suppositories of opium into the vagina, iodide of potassium by the mouth; externally and internally applications of tincture of iodine, turpentine, &c., were made with no apparent gain in the direction of a cure. Finally, I applied a large compress and bandage as tight as she could bear it, and kept up this pressure night and day for two months, until all signs of hæmatocele at last disappeared.

I have frequently resorted to the compress and bandage in cases of hæmatocele, and with good results. In one case I made several fine punctures into the tumor with an aspirating needle, and the patient recovered. The tumor was, however, small and situated low down in Douglas' sac. It

occurred after a hard and violent instrumental delivery. I was fortunate in discovering it very early after her confinement, and she made a perfect recovery after three months, with no recurrent signs.

I have thus selected various cases of pelvic cellulitis, peritonitis and hæmatocele, with a short account of their treatment, in order to do something toward the development of their differential diagnosis, as the diseases have been often mistaken, the one for the other.

[TO BE CONTINUED.]

ART. II.—**Typhlitis.** By RO. J. PRESTON, A. M., M. D., of Abingdon, Va. (Read before the Southwest Virginia Medical Society, Jan. 14th, 1881.)

Typhlitis, typhlo-enteritis, cœcitis, or inflammation of the cœcum, is a disease of rare occurrence, or, I may better say, of rare recognition. It is, I am led to believe, often overlooked or confounded with other affections. This fact has induced me to offer this imperfect paper, with a report of cases occurring in my practice, with the hope of eliciting discussion, and thereby stimulating investigation regarding the subject, and increase our knowledge thereof.

The symptoms of typhlitis, according to Dr. Flint, Sr., are circumscribed pain and tenderness over the region of the cœcum, with vomiting, diarrhœa, and febrile movement. The diarrhœa is not uniformly present; circumscribed peritoneal inflammation may accompany it, and then pain and tenderness become more severe. Dr. Flint says it is most liable to be confounded with phlegmonous inflammation resulting from diseased vertebræ, renal calculus; circumscribed peritonitis from perforation, and, in the female, inflammation of right ovary. I think, too, it may be sometimes, under a superficial examination, mistaken for typhoid fever, as illustrated by the first of the following cases reported:

Col. H., aged about 38, a distinguished Ex-Confederate Lieutenant-Colonel—an active business man, of indoor life mostly, and of a nervo-bilious temperament, was taken October 3d, 1875, with pain and tenderness in the right iliac

region, preceded by chilliness and febrile movement, tongue furred, and bowels constipated. He had been feeling unwell for some time, and had suffered alternately with diarrhœa and constipation, and some uneasiness and slight pain in the right iliac region. On examination, an oval, flattened tumor was discovered by deep pressure in the region of the cœcum, about the size of a goose-egg, somewhat hard and very tender. Believing it to be an inflammation of the cœcum, from impacted fæces, a cholagogue cathartic was, at once, administered, together with a mild opiate to quiet pain, and counter-irritants were applied to the part. I directed a copious enema of oil and warm soap-water to be given in a few hours, and opiates and counter-irritants to be kept up as needed. Much hardened fæces and scybalæ were brought away by the enemata. Symptoms, however, continued, varying much in severity, for two weeks or more, with considerable irritative or hectic fever and loss of flesh. The tumor, however, gradually lessened, and convalescence seemed pretty well established towards the end of the third week.

Being compelled to leave at that time, the case was put in the care of Dr. H., from whom I obtained the remaining history. A gradual improvement continued for several days, when a relapse took place, and all the above symptoms became aggravated, with much fever, tenderness and emaciation, the bowels sometimes loose and sometimes constipated. The symptoms so closely simulated those of typhoid fever as to cause that diagnosis to be made by a neighboring physician. The patient again improved, under the above and similar treatment, after the lapse of several days, only to be followed by a second relapse in December, which was soon complicated by the appearance of an abscess, which opened near the rectum, and discharged copiously a dark offensive matter of decidedly fæcal odor; fever and emaciation increased rapidly until death, which took place December —.

No *post mortem* could be obtained in this case, but I felt assured, from all the symptoms, that there had been perforation of the cœcum or vermiform appendix, resulting in a burrowing abscess, which finally opened near the rectum.

The second case was in the person of a distinguished member of this Society, who for months in the summer of 1876 was confined to his bed, with a painful tumor in the right iliac region, about the size of a small orange, plainly perceptible upon deep pressure, very tender, and attended at

times with acute paroxysms of pain. There was much irritative fever, and considerable loss of flesh. Copious enemata in this case, together with the use of cathartics, brought away at times much hardened feces, and a hard, chalky matter of cholesterolin-like formation, which evidently came from this impacted mass in the cœcum, as proven by the changes in the size of the tumor, and the intelligent expression of a more comfortable feeling in the part by our doctor patient. This tumor gradually disappeared under treatment, and, fortunately for him and for us, too, our patient slowly recovered, and he is still able to meet with us and give us the benefit of his more thorough study and investigation into this subject.

Within the last two years, four other cases (or two of them having a second attack, I might say six other cases) of a milder character, but with evident impaction and inflammation of the cœcum, of a subacute form, have occurred in my practice; but all have gradually recovered under treatment.

At this time, I have under treatment a like case, more severe and obstinate than the last four cases, and much more rebellious to treatment. This case has now continued for over six weeks, confining the patient to bed, except for a day or two. There has been a considerable tumor in the cæcal region, very painful at times and very tender on pressure. This case has, different from any other cases, been complicated with orchitis and considerable tenderness along the spermatic cord, more marked and swollen as the pain and tenderness in the tumor is more severe. Can this in any way be due to the pressure of the enlarged and inflamed cœcum upon the spermatic cord and vessels? This case is now convalescing, and the tumor has almost entirely disappeared.

In all these cases, the treatment has been somewhat similar to the first case. Cathartics and copious enemata of warm soap-water and sweet oil were administered; opiates were given to relieve pain, and counter-irritants, as turpentine, chloroform liniment, iodine and blisters, applied over the part, while nature was supported and aided by the use of tonic and solvent remedies constantly kept up. All these cases have occurred in men of bilious, constipated habit, most of them leading sedentary lives. The nitro-muriatic acid has been used with apparent benefit, in most of these cases, and also the hydrated succinate of the peroxide of iron

in one or two. In every one of these cases the cause or origin of the trouble seemed clearly to be impaction of the cœcum or vermiform appendix, and the more severe cases might possibly have been classed as typhoid fever, but for the presence of this hard tumor in the groin, accompanied with paroxysms of pain.

In searching the medical literature within my reach, I find that Dr. Flint mentions a case of typhlitis (or cœcitis) in a medical gentleman, which resulted in perforation and fœcal abscess, and fistula, which finally healed.

The late Dr. Jackson, of Boston, in his *Letters to a Young Physician*, describes several cases under the name of "A Painful Tumor near the Cœcum." The tumors in his cases, felt on deep depression, were oval and quite small, except in one or two, where they were of large size. All recovered, and the tumors disappeared under the use of cathartics, leeches, opium and blisters to the part. Dr. Jackson was at a loss as to the precise seat and character of this affection. He argued that it could not be from accumulation of fœces, as he had never found it to subside or diminish suddenly after a purgative. But we have, I think, impacted fœces often in other parts of the large intestine, difficult of removal by cathartics, or by enemata, or even by a prolonged diarrhœa or dysentery. From the anatomical structure of the cœcum and vermiform appendix, should we not expect to find impacted, hardened fœces, at this point, very difficult of removal, and taking into account even the resistance of gravitation to be overcome? The history of the above cases reported, and the effect of cathartics and copious enemata, proved pretty clearly to my mind that impaction of the cœcum was the prime cause of most, if not all, the cases that have come under my observation.

It was a beautiful conceit of the physician's little daughter, whose father had induced her to take quinine pills by representing them as humming-bird's eggs. When the drug began to produce its characteristic effects in the ears, the child ran to the parent in great glee, saying that the eggs had hatched and that the little birds were singing in her ears.—*Med. Jour. Advtsq. Bureau Gazetteer.*

ART. III—**Gelsemium in Incipient Epilepsy, etc.** By A. W. WISEMAN, M. D., and W. L. CRUMP, M. D., Jerusalem, Davie county, N. C.

We attended together a case of cerebro-spinal meningitis in a young married woman, nursing her third child, which was a few months old. The patient's parents on both sides were strumous. The case was complicated by slight typhoid symptoms. After convalescence from the meningitis was fairly established, she commenced having epileptic fits. We tried chloral, morphia and bromide of potassium—the last named remedy being pushed to the degree of causing nausea, yet without any beneficial effect. We saw that unless something more was done, we would have a case of confirmed epilepsy to deal with; we put her upon the fluid extract of gelsemium, three drops every two hours, and gradually increased the dose to nine drops. Amendment was noticed in two days, and in one week the fits ceased. Several months have elapsed, with no return of the disease.

In a case of hystero-epilepsy in an unmarried colored girl of about 20 (menstruation normal), with intense clavus hystericus and hemi-anæsthesia, which had been a very troublesome case at different times, we pushed the gelsemium until fifty-eight drops were taken every two hours for days together, with the effect of quelling the paroxysms. A few mild attacks came on afterwards, but were controlled by the medicine, and they gradually subsided; and for several months there has been no return.

The range of the dose is considerable; for during the same time that we were treating the last mentioned case, one of us treated a rather sthenic case of pneumonia in a young married woman, nursing her third child, which was a few months old, and four drops produced the peculiar constitutional effects of the drug. The patient rested as quietly as if she had been asleep, and afterwards said that she could hear the attendants discussing whether she was asleep, and sometimes she could hear some of them say "Now I know she's asleep." And yet the pulse was only reduced from 120 to 112.

We give these results for what they are worth, without go-

ing into any physiological discussion. From what we have seen of this remedy in practice, we believe it to be at least as safe as veratrum, and its constitutional effects can be brought about without the nausea and depression that veratrum causes whenever it is pushed far enough to control the circulation. When the gelsemium produces muscular weakness, in adynamic cases of pneumonia, we think it had better be abandoned. The effect passes off very soon.

ART. IV—**Salicylic Acid in the Treatment of Cervical Endometritis.** By CHAS. C. CONWAY, M. D., Rapidan, Va.

In this troublesome complaint, the use of salicylic acid, applied in the following mode, will often prove of great value :

Mix salicylic acid and vaseline [or cosmoline] to the consistence of a thick paste; apply it liberally over a small sponge tent, about an inch long, and insert it into the cervical canal, after having removed the tenacious mucus from the canal. Let the tent remain about twelve hours. The application should be repeated twice a week until the inflammation has subsided, which will not usually require many applications.

If there is an abrasion or granular degeneration around the external os, also apply the dry salicylic acid to the part. The pledget of cotton wool, saturated in glycerin, should be placed over the whole.

If there is cervical hyperplasia, instead of using the dry acid, paint the cervix over with the compound tincture of iodoform, as recommended to be prepared in the *Medical Brief* for March, 1879, as follows :

Ry. Iodoform.....	grs. xv
Iodide potass.....	
Glycerin.....	aa 5ij
Alcohol.....	5vj

M. Rub up the iodoform and iodide of potassium to the consistency of a fine powder; then add the glycerin and rub up to the consistency of cream; then add alcohol and stir briskly until it is dissolved.

ART. V.—**The Healing Springs of Virginia.*** By J. LEWIS DORSET, M. D., Genito, Va.

There is, amid the quiet, but majestic beauty of the mountains in the county of Bath, Va., a medicinal fountain, whose healing waters, laborated and compounded by the Great Pharmacist, seem designed for the "healing of the nations," afflicted with physical maladies, known as the "Healing Springs."

From his own experience, the writer can testify to its producing the following effects: It secures quiet and refreshing sleep; it increases the appetite and aids digestion; it exerts an expectorant and healing influence on the windpipe, thereby enabling the sufferer, even easily and pleasantly, to get rid of the tough albuminous and muco-purulent exudations that accumulate therein when diseased as his was. It promotes the functional activity of the kidneys—a very important end to be accomplished in numerous cases. It seems to exert a rejuvenating power over the skin, when used in connection with the bath, removing its rigidity and dryness, and imparting to it the softness of an infant's flesh. Indeed, we think it promotes the activity and efficiency of all the functions of the body, being alterative, diaphoretic, diuretic, expectorant, hypnotic and sedative. Its nerve-soothing, sleep-promoting, appetizing and re-invigorating powers make it a great desideratum with a large class of patients. Its "crowning virtue," however, the writer thinks is its alterative power, or influence in promoting interstitial absorption and elimination. It seems to arouse the sluggish lymphatic vessels, arterioles, venules, etc., to greater activity, and to give a more healthy action and tone to the great emunctories of the system—the kidneys, liver, skin, etc.; and thus advances the removal of

*This paper was presented during the session of the Medical Society of Virginia, in Danville, October 20th, 1880, with the report of the Chairman of the Committee on "Mineral Waters of Virginia"—Dr. James B. McCaw. But, for reasons stated in a foot-note on page 247 of the published *Transactions* (bound with the January number, 1881, of the *Virginia Medical Monthly*), it was deemed best that it should not appear as an official paper of the Society. Hence, its present appearance as a *journal* article. We are anxious to do what we can to develop the interests of the worthy Springs and watering places and health resorts in our country.—*Editor*.

the effete and peccant matter that clogs the wheels of life. The writer regards this water as a most active and efficient scavenger, rapidly traversing every street, alley and recess of man's complex city of avenues—cleaning them all out. We must remove all the useless and hurtful elements from the building of flesh, and thus prepare it for the reception of new matter, designed to carry on the work of separation. As a diuretic, it seems very valuable. It did not act upon the writer as a renal hydragogue, but as a renal depurant. At the time of his visit, he was discharging an unusual amount of limpid urine (diuresis); but in less than forty-eight hours after commencing the use of the water, the quantity was greatly diminished; but the solid constituents were largely increased, exhibiting a high color, and emitting an offensive odor. A diuretic may act as a renal depurant by increasing the metamorphosis of tissue. As the vital forces are ever antagonistic to the chemical changes to which all living tissues are liable, becoming more potential as vitality is augmented, and presenting less and less resistance as the vital endowments are diminished, the writer reaches the conclusion, that a renal depurant would act more potentially on one whose vital endowments were low and feeble, than on one in robust health. Therefore, we expect to find the truth of this theory verified by actual experiment. The writer thinks that it acts as a solvent to morbid products, which, possessing less vital energy than normal tissue, offer less resistance to therapeutic agents; and thus their disintegration and final absorption and elimination are effected. This theory of its action seems plausible, at least, to the mind of the writer, and explains how it acts so potently and promptly in the removal of chronic ulcers, cutaneous affections, etc. The language which Dr. Polk employs in regard to damiana, may be appropriately applied to this remarkable water, for it seems to act as a stimulant and tonic to the primordial nerve cells, increasing their tonicity and activity, thereby enabling them to select and appropriate the necessary amount of pabulum from the blood to carry on their work most efficiently.

A word or two just here, as touching the writer's condi-

tion for three or four months just preceding his visit to the Springs: He suffered from chronic encephalitis, congestion of his right lung, enlargement of the liver, a most distressing throbbing of the heart, pulsation of the aorta in the region of the stomach, severe gastric derangements, attended with anorexia, insomnia, terrible neuropathic derangements, great depression of spirits, and a feeling of almost utter despondency. The case seemed a most complicated and aggravated one, with hardly anything left to base a hope of recovery upon, except his trust in a kind and all-wise Providence, and his own innate and undying energy. His condition appeared to be aggravated both by sleep and the recumbent position, although the former was essential to the recuperation of the vital powers. At times, his pulse would be full, strong and frequent, and reached as high as 140 beats to the minute; but only when more feeble was it so rapid. By the persevering employment of active remedial agents, such as counter-irritation, *veratrum viride*, sodium bromide, aperient hepatics, the application of hot water to the head, producing a contraction of its blood-vessels, and the cold plunge bath to the lower extremities, inducing a plethora sanguinis in them, his condition was so far ameliorated as to enable him to visit the Healing Springs, which greatly accelerated his improvement, as there was a beautiful adaptability in the medical properties of this water to the pathological conditions of the many afflicted organs of his body. It seemed to meet every indication of treatment that his case required. His sleep was quiet and refreshing, his appetite improved rapidly, his digestion was satisfactory, the secretions generally became active and healthy, and his increase of weight averaged about a pound a day.

The writer, wishing to express his appreciation of real merit, would state that the proprietor, Mr. W. B. Bishop, is courteous and accommodating, the servants polite and prompt in the discharge of their respective duties; the spacious, well arranged and pleasant dining-room, with the delicious viands found in it at every meal, seemed almost faultless. All these last mentioned items yield large contributions to the comfort, happiness and improvement of the invalid.

Parties visiting this or any other place in search of health, should strictly observe all the rules and restrictions necessary to secure this great desideratum—this priceless boon.

Correspondence.

Canadian Medical Laws.

Mr. Editor,—Referring to my communication in the December number (1880) of the *Medical Monthly*, relative to the "Ontario Medical Act," I desire now to thank you for the prominence given that article, as well as for your endorsement of the suggestions therein adduced.

When I wrote the article in question, I could not give positive data as to the medical institutions in the United States, if any, excepted under the Act, by the "Medical Council" of Ontario. Since then, however, I have been in communication with the Registrar of the "Council," Dr. Pyne, and the editor of the *Canada Lancet*, Dr. Fulton, to both of whom, together with Dr. Hayes, of Simcoe, I am indebted for valuable information, and for no inconsiderable courtesies. From this correspondence, I glean that the best that can be done for an American graduate is to attend one full course at an Ontario medical college (*en passant*, I may say that the "Announcement" of the "Council" for 1881, says four years) before he can practise—the "Council" not deeming proper to except any American college, notwithstanding it has the power. Nor are American authors, no matter how distinguished, as stated in my last article, treated any better, although Dr. Fulton, editor of the *Lancet*, before adverted to, says that they would be only "subject to the spirit and not the letter of the law." As to this, however, I think the Doctor is in error, as I know of one distinguished American author, at least, who, not long since, came over here to consult, and was arrested. He was, however, permitted to leave upon promising that he would not again violate the laws of Canada in this connection.

In conversation and correspondence with medical men of

Canada, I find their principal objection to American graduates is that the curriculum does not embrace as many years as that of the schools of Canada. Ordinarily, this might be doubted; but judging from the gentlemen of the profession whom I have met here, and of those whom I know by reputation, I am forced to believe it. The fact appears to be, that very many well-informed physicians, perhaps the majority in Canada, think that half the schools of medicine in the United States are spurious; and the man, Buchanan, of Philadelphia, has done much to warrant them in it.

The belief is quite common, that one can get a diploma in the United States without attendance at a medical college; and even one so well informed as Dr. Fulton, of the *Lancet*, is of this belief, and so stated in a letter to me. It is lucky that Buchanan and his coadjutor are now in prison, so that there will be no more diplomas from that source. With this erroneous belief in the minds of so many of the profession of Ontario, and with which I was not conversant when I communicated with the *Monthly* last, it is not so astonishing after all, that they should have caused the enactment of the law in question; and had they but elected to keep out the spurious class, and admit the genuine, the equity of the law could not be questioned, and no suspicion could have obtained that it was aimed at the United States. It would have been an easy matter for them to have ascertained the reputable colleges of the United States, through the Medical Society thereof, or through the Department of State at Washington, either of whom, I am sure, would have been glad to furnish a list of these institutions. The laity here, almost to a man, so far as my information goes, say the law, in keeping out American graduates, is absurd, and one or two Legislators with whom I have conversed on the subject, seem to think it should be modified so as to keep out only spurious physicians, though they did not offer to take any steps to that end.

We should certainly protect ourselves, and there is no better way than to have Congress act. So soon as the profession of Ontario realize that we mean business, they will likely accord us honorable footing with themselves. But, as you well and truly say in your editorial, "Canadians are

much more indebted," etc., etc. "And not only that—as a matter of policy—it is well known that many more Canadian graduates are applicants for practice in the United States, than are graduates of colleges in the United States for practice in Canada;" therefore, if they can stand the law as it now is, certainly we can.

With reference to the difference of one year in the curriculum of the schools of the two countries, I think there is no just grounds for objection on this score, as a casual glance at the medical authors, and medical men of the United States, will verify:

Without arrogating any such superiority to Americans, it has been said, that they learn anything and everything much more quickly than do the people of other nations, and in a recent interview with a reporter of the *Washington Post*, Mr. Archibald Forbes, the great English war correspondent, said, that "an American could accomplish in ten years what an Englishman would consume thirty years in accomplishing."

If our education is not sufficient, how is it that our medical men write books, and that their books are quoted and translated into almost all the civilized languages of the world? Again, how is it that men who do not write books attain such eminence in the profession, if their education is defective? These are questions that those who object to American physicians, on the ground of defective education, may answer.

In conclusion, Mr. Editor, I see that the profession of Michigan is about to petition the Legislature of that State to enact a law, which in some degree embraces the suggestions in my letter in the December number, 1880, of the *Virginia Medical Monthly*.

And now, thanking you for your courtesy and kindness, I am, Mr. Editor, sincerely yours,

PHILIP CARROLL, M. D.

Simcoe, Ont., January 20th, 1881.

Corns may be cured without pain by using thirty parts salicylic acid, five parts extract cannabis Indica, and 240 parts of collodion. Mix well, and apply by means of a camel's hair pencil. So says Mr. Gezon, a Russian apothecary.

Abnormal Entozoa in Man.

[Dr. Cutter, in sending his *Note*, as annexed, also sends us a paper published in the *American Journal of Microscopy* for February, 1881. The subject may be to some a little repulsive; but a better general knowledge of such matters may be wholesome, as it might, in many instances, save some from becoming the unwilling host of very dangerous guests. We accordingly cheerfully comply with Dr. Cutter's suggestion in publishing both his note and the full article as it appears in the *Journal of Microscopy*.—EDITOR.]

Mr. Editor,—Knowing your fondness for practical papers, I enclose this for your perusal and use, with this additional note of my own as to Note 2:

Some fifteen years ago, my attention was called to a fly depositing living larvæ on fresh human dung. It was in a clump of forest trees, but the day was clear, the light good, and my attention not distracted. The larvæ were born at about the rate of 48 per minute. As they were dropped, each larva wiggled its way through the excrement in lines radiating from the vulva of the mother fly. They travelled fast—making the distance of their own length rapidly. Before this time, I was unaware that flies were ever viviparous. These living births excited my wonder; but what I am to relate excited my astonishment, which the lapse of years has not abated. I noticed that at times there were delays between the deliveries, and the engaged larva would relieve itself in its birth; but when the interval was prolonged to one-twelfth of a minute, the last born larva that was wiggling away from its mother, and had got a distance of at least one inch off, deliberately turned right about face, wiggled up to the fly's genitals, raised its little black head up, seized the engaged larva's head by its own jaws with one motion, and yanked it out in an instant, and then resumed its journey as before, and as if it had not dexterously, and without a false movement, executed skillfully an obstetrical delivery that would have done honor to a professor of midwifery! In other words, this little one-eighth inch long, one-twelfth minute old living offspring of a fly showed by its actions—first, that it knew there was a difficult labor succeeding its own birth (how could it?); second, knew enough to turn about

and deliver the case *secundem artem*. This an insect! What human being just born could do a like thing? Talk about man's being developed up from the so-called lower animal kingdom—why, man never did anything in the obstetrical line so marvellous as this. But this is not the place to enlarge. It shows that not only are flies viviparous, but that the new-born larvæ display intelligence, promptness, accuracy of movements, and a judgment surpassing anything found in human lyings-in.

EPHRAIM CUTTER, M. D.,
(late of Boston).

168 E. 60th St., New York, N. Y., Feb. 2, 1880.

Abnormal Entozoa in Man*—By Rev. Samuel Lockwood, Ph. D. Outside or inside, the parasite is everywhere. Nothing that hath life is exempt from invasion by these disturbers of health and happiness. Almost like infinitesimal germs, their eggs course through the air we breathe, swim in the water we drink, enter the ground or settle upon the plants we till, and infest the food we eat. And sometimes these unwelcome guests are insidiously introduced to us by the animals we pet or domesticate. Indeed, the lower animals have a hard time from these tormenting pests. I remember finding Mr. B. Waterhouse Hawkins in his laboratory at Central Park, dissecting a seal which had died in the menagerie there. On opening the stomach, he let off some mild anathemas against the school children, who, he said, had killed the animal. He displayed to us about a pint of pebbles, buttons, slate pencils, and such like *indigesta*, which lay in the animal's stomach. This, to say the least about it, had a very abnormal look. But let us see. Perhaps it was the best the animal could do in the direction of a natural competency. According to Mr. Elliott, who is authority on the pinnipedes, the fur seals in their own habitats *all* swallow stones, and in every one's stomach, varying in size from that of a walnut to that of one's fist, a snarl or ball of nematoid entozoa is found. The larger seals, or sea lions, swallow stones which weigh from one to two and even three pounds each; and in one stomach he found ten pounds of these boulders. Their use, he thinks, is to "grind up these internal pests." It may be that their movements in the stomach sometimes dislodge the parasite when sucking at its walls, thus affording a similar temporary relief to that afforded by a good "scratching" to the victim of *sarcoptes hominis*.

We may readily distinguish in man the adventitious from the indigenous entozoa. The latter are, by scientific consent, known as helminths, and the former, although not with strict correctness, have been called pseudelminths, since, generally, they are grubs and not

*Read before the New Jersey State Microscopical Society, Nov. 22, 1880.

worms. Moreover, among the true helminths, or entozoan annelids, we find more or less the phenomena of parthenogenesis. Before its life circle is accomplished, it has had several animal hosts, in each of whom it maintained a distinctive form and mode of existence. The grubs, or pseudelminths, are really larvæ of insects, whose changes are known as metamorphoses; and however great these changes may be, the beginning-form—the larva, or grub—is never wholly lost; for even in the imago state, the butterfly is really a winged caterpillar, and the true fly a grub or maggot with wings.

Cobbold cites, but with evident distrust, the astonishing tables compiled by Rev. J. F. Hope, in which, from the helminthological records of nearly all Europe and Great Britain, he instances not less than forty genera of insects whose larvæ have been entertained in the stomach of man. Strange to say, the greater number are coleoptera, whereas in America I am not able to find one good case of a beetle entozoan; for we are not here considering epizoa, nor those parasites which from without penetrate the skin, but those only which enter their host by the mucous or alimentary canal. I may be allowed to notice here a very remarkable case, cited by Westwood, the entomologist, and Cobbold, the helminthologist, from Dr. Pickell's account in *Transactions of the Association of Fellows and Scientists of the King and Queen's College of Physicians in Ireland*. A certain Mary Riordan, passed *per annum* 1,206 larvæ, one pupa, and one imago of the grave-yard beetle—*blaps mortisaga*. She had, from a superstitious motive, been in the habit of drinking daily water into which she had mingled clay obtained from the graves of two priests. This subject also passed large numbers of the common round worm (*ascaris lumbricoides*) and the not so common *A. mystax*, indigenous to the stomach of the cat.

I am disposed to believe that quite often the larvæ of the diptera, or flies, occupy the human stomach unknown, the sufferer attributing his distress to some other cause.

Packard cites the *Proceedings of the Academy of Natural Sciences* for 1859, in which Dr. Leidy mentions the case of a physician who submitted to him a number of larvæ which had been vomited by a child. He thought they were the maggots of the blue-bottle fly—*musca vomitoria*. Another instance was also mentioned. The sufferer in this case was a physician, who detected a number of grubs in his discharges, when suffering all the symptoms of severe cholera morbus. These Leidy pronounced as a species of anthomyia, which it seems he had already observed in a patient who had suffered in like manner. Murray, in his late hand-book, avers his opinion that the cheese mite, flour mite and milk mite, also the dysentery mite of Linné, are all one species. This last mite gave the dysentery to Roland, a student of Linné, who named it *acarus dysentericæ*. It must be noted here that the mites are, in Packard's classification, degraded or, perhaps, undeveloped diptera or wingless flies. The urinals of Paris are much frequented by the larvæ of *teichomyza*

fusca—and, disgusting though it be, the maggots of this fly were evacuated by a woman, who had suffered much from their presence.

But we must come home to some facts which prompted the preparation of this paper. Last July, a young man, a teacher, brought me a number of larvæ which, he said, he had passed at stool. His appearance indicated great physical distress. His face looked haggard—his eyes dull and wild. His sight was affected, and his memory impaired. He complained of severe gripes in the bowels, like colic, and occasionally a sense of distress which he could not describe—a sort of feeling that he was going to choke, as it seemed that “the worms were crawling up his throat.” The “worms” in question, he had passed the day before; and he thought that in two weeks he had discharged 200 of them. He said he thought they “kept quieter in his stomach when he ate plenty of meat.” He directed my attention to the fact that there were two kinds of “worms,” one white and smooth and round, and the other flattish and brown and hairy. He further informed me that he took his dinner daily to school in a tin pail. Hence, we see that he dined on cold food, which was, in large part, cooked on the previous day. I have the specimens here, and we will look at them with the microscope. It will be seen that they are headless and footless larvæ; they are genuine fly maggots. I have given some study to them, and must pronounce the “round white ones” the grubs of the meat fly (*sarcophaga carnaria*), whose life history is given in my paper in the *American Naturalist*, vol. ii. Unlike the true blow-fly, which lays eggs, our meat-fly deposits the grubs already born. These tiny objects insinuate themselves into the creases or folds of the meat, and so for a little while are quite concealed. They take gratefully to cooked meat, and devour it with astonishing voracity. How easy could these be swallowed unperceived by a careless eater, especially if the taint of the meat had not progressed sufficiently to affect the taste and smell.

The brown, hairy, flat grubs belong to the group *anthomyia*, or flower-flies. It is notable, however, that though the resemblance of some species of these flies to each other is very close, the maggots whence these resembling species come are widely different. Some are round and smooth, others flat and hairy. Hence, authors divide this genus, making two, which they call *anthomyia*, the flower-flies, and *homalomyia*, the flat-flies. They are bright, gay, diptera, seen in a hot summer day hovering over flowers, and occasionally dipping into their nectar cups. Despite their beauty, however, they are all “bad cattle.” They deposit their eggs on the esculent roots of our gardens; also on human ordure; and notably on decaying vegetables. The species before us I take to be *A. canicularis*. A look at this grub is suggestive of great torment when it becomes an occupant of the human alimentary canal. The smooth, round maggots have spiracles or breathing holes along each side. But as our species revels in the soft animal ordure, and the juices of vegetable decay, it is furnished with a strange contrivance. Starting

from where each spiracle would be, is a stout hair, with sprangling bipectinations. These are branchial processes. Functionally, they are like the gills of a fish (Walsh); for with these they extract the air from the juices in which they wallow. It has plenty of other single hairs, which are stiff and sharp pointed. Thus constituted, when found where these were, we may regard them as intestinal porcupines.

But how came these unwelcome and really abnormal guests to gain an entrance? It was not unlike that Trojan horse business. My young friend had been eating cold cabbage. The sarcophaga chose the meat, and the anthomyia the cabbage—both being, perhaps, in that hot weather, a little over-seasoned by time.

The larvæ were brought to me dead and shrunk from being dried up. It is to be regretted that, with such ample opportunity, none were furnished me alive, so that I might breed the imago. Here I would cite from a note in the *American Naturalist*, June, 1875. Says Mr. Judd: "Dr. Martin, of Maysville, Ky., was called to see a boy aged 14, who was seized with violent spasms. A purgative caused the lad to pass at one stool fifty maggots. This was June 5th. These were put into moist earth, and on the 17th the perfect flies appeared. They were submitted to Baron Osten Sacken, the dipterologist, who pronounced them *anthomyia* (*homalomyia*) *scalaris*."

Among the helminths is the section *nematelminths*. This is divided by Packard into two groups—the *nematodes*, containing *strongylus*, the round worms, and *ascaris*, the pin-worms, both of which are normal entozoa, to the human subject. The next group is the *gordiacea*, which has two genera—*gordius*, the hair snake vulgarly called, and *mermis*, the thread worm. These are true helminths. I have never heard of their being guests in the human subject; and yet, as adventitious entozoa, it seems to me they must occur. Their eggs appear to be so disposed of that they find their way into insects, terrestrial and aquatic.

The following incident may prove interesting and instructive:

Many years ago, I was very successful in breeding the New York stickleback in confinement. My experiments were with the marine, two-spined variety, *gasterosteus noveboracensis*. I tried hard, but in vain, to breed in like manner the fresh-water species, the tiny ten-spined *pygosteus occidentalis*. At last I got, as I supposed, a fine female full of eggs. How I watched her day by day, and saw the abdomen steadily distending, but not the least preparation in the line of providing for an increase of family—for these little fishes are ingenious nest builders. The affair puzzled me a good deal. At last it died. I opened the tiny thing, and found a hair worm, in a hard knot, which, when uncoiled, measured nearly six inches.

Some years ago, Dr. Leidy had submitted to him a white thread worm, which he pronounced a *mermis*; and, strange to say, it was taken out of the core of an apple which a person was eating. In 1876, a young man sent me a white thread worm, which he had

found in the core of an apple which he was eating. Having mislaid the specimen, I speak from memory, and think it was over four inches long. To my surprise, I recognized *mermis*, and believe it to be *M. albicans*. I learn also that our fellow-member, Dr. Williamson, last summer, had a case submitted to him of two of these worms in one apple core, their length each being some three inches, for no measurement was made. These phenomena are extremely puzzling, and must be regarded as very anomalous.

I have here several inches of tape-worm. It is without doubt a *tænia solium*, as all the characteristic parts are represented. The long, so-called neck, and the head, with not less than 50 joints, or proglottides, of the so-called body. It was taken from a well prized for its clear, cold water. The man was pumping a pail of water for the horse, and observed it in the water. I have made inquiry, and cannot find any way for this to have got into the well. There is, however, a large tree which overhangs the well, and which is often visited by birds. True, this is not the kind of *tænia* indigenous to birds; but as we have shown that non-indigenous entozoa do occasionally occur, it seems to me both possible and probable that a bird dropped it in the well.

The following *Notes* are added to the paper by S. J., of Freehold, N. J.:

1. It has been asked with an air which seemed to imply impossibility: "How could a *mermis* get into an apple?" We think it was in like manner with the codling-moth, *carpocapsa pomonella*. The mother moth lays an egg on the blossom end of the fruit. This hatches, and the tiny larva enters the tender fruit, while it is little more than the ovule of the flower. But later in the year these larvæ finish their changes, and themselves become parent moths. These deposit their eggs on the now much advanced fruit. These second brood larvæ, penetrate to the core, and if caught by very cold weather, may hibernate there. Now the helminths, when leaving the egg state, have extraordinary boring power. Suppose, then, one at this stage to be accidentally deposited on a growing apple, by an infested spider. The rest, we think, might be easy. But this does imply a singular change of habit. Yet such anomalies do occur. We find even the codling-moth doing a strange thing. Dr. Schimer avers that on several occasions *C. pomonella* invaded his library, even eating through the leaves of the books, to make burrows in which to pupate and spend the winter, and he cautions against storing apples near a library.

2. As to the ovo-viviparous meat-fly (*sarcophaga carnaria*)—that insects can be viviparous has been denied by no mean authority. The allegation is that the ova were hatched in the oviduct, being retained there too long—the insect failing to find a proper nidus in time. We think the following three facts oppose the allegation: (a) We have captured the gravid insects in long repose, and squeezed the living larvæ from them. (b) The frequency of finding this fly gravid with live grubs. (c) The fact that the lepidoptera, both captured ones and those bred in confinement, will, when under restraint, unduly retain their eggs, and then deposit them in very unfavorable places; but never, so far as I can learn, do they evict the living larva.

3. The allusion to the absence of parthenogenesis in the unfolding of an insect may be mistaken by the reader. Even in Biology we are sometimes met by phenomena which seem irregular and exceptional. Parthenogenesis proper can only be looked for very deep down in the scale. We find it in the hemipterous plant-lice, the aphides. And something of that sort has been observed even

among the hymenoptera, and recently a similar fact is claimed for a coleoptera. Still, it may be asserted, that the phenomena cited are isolated, and in every way aberrant. They are off the normal life-line, and are, as it were, certain poppings out of differentiations backward.

Unprofessional Advertising.

Mr. Editor,—Enclosed please find a paragraph (which is but a sample of many like publications), to which I wish to call the attention of the profession through your journal. How long is this mode of advertising to be permitted? It has not been many months since I saw in one of the newspapers of this city that a *very formidable* operation had been performed at the Almshouse by a Professor in our Medical College. The operation was simply tracheotomy upon an adult—one of the simplest in the whole range of surgical practice. The following is the paragraph, which we clip from a daily newspaper:

“A Brilliant Operation.—A brilliant and successful operation was performed Friday afternoon by Professor Oscar J. Coskery, at the City Hospital, on Henry Lawes. The man accidentally strained himself some weeks ago, and has since been suffering greatly from strangulated hernia. Professor Coskery cut through the lower part of his stomach into the abdomen, and, after replacing his intestines, sewed up the opening. Lawes last night was doing remarkably well. The operation is seldom performed, and is always attended with great danger. The operation was so skillfully and neatly done that it is expected Lawes will be fully restored to health in a comparatively short time.”—*Balt. Herald*, 8th.

You will notice that the reporter, who, I have no doubt, got his points from the operating Professor, makes the astounding statement that “the lower part of the stomach” was “cut through into the abdomen.”

When I was a boy in the profession, it was considered the height of indelicacy and the greatest breach of professional decorum to be hoisted to a practice through the medium of newspapers; and such matters were then thought to be reprehensible in the last degree. Is it a fact that now *nous avons changé tout cela*, and that in this day “Professors” are allowed

to bring themselves before the public by squibs from ignorant "mappers up of inconsiderate trifles."

Yours, very respectfully,

A RETIRED MEDICUS,

Whose Sands of Life have not run out.

[Our correspondent is on the right path in the main. But sometimes blame is attached to the "Professors" and "Surgeons" for newspaper notices of their operations, when, in reality, they were ignorant of the fact that a newspaper report of their doings was to appear in the next morning's paper. In the instances referred to by "A Retired Medicus," the reports of the operations are so bunglingly made that we cannot suppose either of the gentlemen referred to had any knowledge of their publication until they appeared in the papers.—EDITOR.]

Original Translations.

From the French. By RICHARD H. LEMMON, M. D., Charlottesville, Va.

Recent Studies on the Nature of Malaria.—*Le Journal d'Hygiène* was the first scientific organ which made known in France the remarkable work undertaken in Italy by Professors Edwin Klebs and Tommasi Crudeli—work which has led these *savants* to a discovery of the highest importance, viz.: To know the specific agent of malaria. We will not revert to the first memoir, which they published in June, 1879, "*Concerning the Nature of Malaria*"—a memoir of whose conclusions we have already translated (see No. 149 of this journal). We insist neither on the note in which Professor Tommasi Crudeli showed the result of his studies in Sicily on the *bacillus malarie* (see No. 207), having already devoted a long article to these researches. Since then, the observations relative to this parasite have been continued by MM. Professors Perrancito (of the Veterinary School of Turin), Ceci (of the University of Rome), Cuboni (of the University of Rome), Marchiafava (Chief of the Pathological Anatomists), and Drs. Valenti, Ferraresi, Sciammanni and Picirilli, of the same University. The following are the results obtained by these new observers:

1st. In all the malarial country of the Roman Field they

have found the *bacillus malarie* already developed (Cuboni); (and, by artificial culture, it *can* be produced in great quantity). It has not been met with in the country in the healthy localities of Lombardy.—(Cuboni.)

2d. This same *bacillus* is accumulated sometimes in such considerable quantities in the strata of air which lie over the malarious districts during the hot days of summer that, to gather it, special apparatus is useless. It is found in abundance in the sweat of the forehead and hands.—(Cuboni.)

3d. During the height of the fever, sporules of the *bacillus malarie* are constantly present.

(a) *They are also found* in the blood of hares, which have been subjected to the malarial infection.—(Ceci.)

(b) In the blood drawn from the veins of men similarly tainted.—(Marchiafava, Perrancito, Ferraresi.)

(c) In the blood taken from the spleen of the same invalids (after a process conceived by Dr. Sciammanna).

(d) By the examination of this blood, has been obtained the *bacillus*, perfectly developed, and presenting the same forms already described by Klebs and Tammari.—(Crudeli, Ceci, Cuboni, Ferraresi.)

(e) The same has also been obtained by the examination of the spleen of persons dead of pernicious fever. Examinations made of the spleen of those dying of other maladies in non-malarious regions give negative results.

4th. If the blood drawn from the veins of invalids, tainted with marsh fever, is injected in the subcutaneous tissue of dogs, it produces in these animals the same disease.—(Marchiafava, Ferraresi, Valenti, Sciammanna, Picirilli.)

5th. In all cases where the blood of those tainted with malarial fever has been drawn from the veins during the inception of the fever, this blood usually contains the fully developed *bacillus* in considerable quantities. In the height of the fever, on the contrary, as we have already said, the *bacillus* disappears to give place to its sporules.—(Marchiafava, Ferraresi.)

The invariability of this last result, analogous to the facts observed in the study of "*spirillum*," which causes typhus, is of considerable importance in the question which now occupies us. First of all, it gives us the explanation of the differences of the results obtained during the summer of 1879 by Prof. Marchiafava, in the series of examinations made of the blood of five persons dead of pernicious fever—the examinations being made immediately after death. In three of these the blood in the veins and heart contained a

great number of fully developed *bacilli*, while it was impossible to find in the blood of the other two a single *bacillus*, but only a remarkable quantity of spores. Facts newly discovered at Rome lead us to believe that the first three died during the period of invasion; the other two, on the contrary, must have perished during the crisis of the fever. Experiments on animals have demonstrated that the chosen seats for the parasite, which produces malarial fever, are the spleen and the medulla of the bones, organs which invariably are the seat of the gravest pathological changes in persons who have succumbed to this affection. It is probable that the production of the new generations of the parasite in these organs varies in rapidity according to individual dispositions, and, perhaps, also according to the quality of the land whence the parasite comes; this will explain the great variety which is observed in the duration of the intermission in marsh fever. Probably the occasion of fever is produced only at the moment when the emission of the parasites, coming principally from the spleen, comes to a point similar to the stage of those found in quantities in the blood. Perhaps, also, the cold of the febrile invasion is due to the irritation of the vaso-motor nerves following the presence of this army of invaders in the circulatory system. These organisms find in the blood the most favorable conditions for accelerating their evolution, viz.: heightened temperature and oxygen stored up in the red globules. It is not astonishing that their disorganization should be already complete at the height of the fever. On the other hand, the great number of reactions undergone in the blood and tissues, and the resulting assimilations and excretions, sufficiently explain the development of the febrile heat.

Prof. Tommassi Crudeli, in a letter, expresses the opinion that "As soon as the nature of the cause of malarial fever shall be well established, we can proceed more boldly in the researches destined to discover a practical means of preservation. Permit me here to add some suggestions to colleagues who wish to undertake and extend these researches. Magnifying powers of from 500 to 600 diameters suffice for demonstrating the forms of *baccilli* of which I have spoken. But, to comprehend all the details of their structure and to identify them with the types described by Klebs and myself, this amplification must be obtained by means of high objectives rather than deep eye-pieces. A good objective of the power of No. 10, Hartnack, or $\frac{1}{12}$ of Zeiss is the best for this kind of work." [The homogeneous immersions of Zeiss, from

$\frac{1}{12}$ to $\frac{1}{18}$, are, perhaps, thought highest of in this country for studying bacteria and bacilli.—R. H. L.]

“In the primary observations, before forming a finished opinion of the condition, some special precautions should be employed in collecting the blood. Instead of taking it from the capillaries of the skin, it is best to draw it directly from the veins. The blood should be collected in tubes, whose orifices should be at once closed by drawing out the tube over a lamp. The tubes should be retained in a vertical position to prevent homogeneous clotting, and a complete precipitation of the red globules. Then examine the serum under the microscope, particularly that of the upper layers. One thus avoids confounding the bacilli with filaments of fibrin, or not seeing them, hidden, as they may be, in the midst of the red globules. It is, of course, needless to take these precautions when the forms have been seen several times clearly, and when the parasites are counted by hundreds as often happens.”—Em. Vaisson in *Journal d'Hygiene*, December 9th, 1880.

On Embalming.—Dr. Wickersheimer, in the *Medical Times*, gives the following formula for embalming, and for preserving anatomical specimens: Alum, 100 grammes; cooking salt, 25 grammes; salt of nitre, 12 grammes; potassium, 60 grammes; arsenic acid, 10 grammes. Dissolve in 3,000 grammes of boiling water; then let the mixture get cool and filter. To two litres of this solution add one litre of glycerin and 250 grammes of methylic ether.

According to the author of this formula, corpses preserved by the aid of this liquid do not dry up; but, on the contrary, retain their color and elasticity, and the muscles retain their suppleness for a number of years. In speaking of embalming, Dr. Wickersheimer advises that the corpse should be previously injected—one and a half litres being used for a child, five for an adult.

After this, the body should be plunged in the solution we have just given and allowed to macerate for several days; it should then be taken from the bath and closed up in a hermetic coffin. For anatomical purposes, a simple injection will suffice. It is always preferable to inject the viscera and pulmonary organs before immersing them. This method may also be used in preserving the *invertebrata*.

This liquid recommends itself to the attention of specialists by its harmlessness and its moderate price; it also presents the great advantage of preserving the natural color of the bodies and the elasticity of the muscles.—Dr. Leon Rink in *Journal d'Hygiene*, December 9th, 1880.

Chloroform Acts Directly on the Nervous System.—The following communication was made to the Society of Biology, at its meeting on the 4th of December, by Dr. Brown-Séquard. This distinguished man relates the following curious observation: Chloroform being injected into the ear of a guinea pig, ten minutes after, the animal is seized with convulsions and with vertigo, as if the semi-circular canals had been injured; there is also complete anæsthesia of the same side. These phenomena may last six or eight days. M. Brown-Séquard here recalls the story told by Sir James Paget, of a great personage who went to consult a quack about some ear trouble. He injected into the auditory canal same drops of a solution of nitrate of silver. As there was a perforation, the semi-circular canals were injured, and the great man commenced to turn round and round, and kept it up for several days. This, however, did not prevent him from returning to the charlatan. M. Brown-Séquard then completed a former communication on the effect of local applications of chloroform on guinea pigs. That the inhibitory phenomena be produced in their totality, it is necessary that the application of chloroform should be very large. [In the experiment referred to and reported at the meeting of the Society on the 27th of November, M. Séquard proved that chloroform, in opposition to the statement of M. Claude Bernard, acted, on being applied to the skin, at once on the nervous system, and did not first pass through the circulatory system before producing its effects.—R. H. L.] The application of a small amount, repeated for some time, does not give decided results.

Replying to a question of M. Houel, M. Séquard further declares that for this reason surgeons who waste chloroform on their fingers are not exposed to any inhibitory nervous action; the surface is too restricted. Also, he had noticed that the fore paws of an animal (guinea pigs were being used) could be plunged into chloroform without producing any distal effect.

M. Dumontpallier cites a fact in support of the ideas defended by M. Séquard. Having had an abscess to open in the right arm, he used ether spray on the corresponding portion of the left arm. The anæsthesia was momentarily complete enough in the right to allow of the operations being performed without pain. But these phenomena of crossed anæsthesia are extremely transitory.

Electrifying the Interior of the Stomach.—M. Leven reports several cases of uncontrollable vomiting treated with success

by electrifying the interior of the stomach. The current is passed through an œsophageal sound. M. Leven has been able by this means to stop in a short time vomiting which had resisted all previous treatment.—*Le Progrès Médical*, December 18th, 1880.

Functions of the Spleen.—M. Mallassez cites an experiment which seems to prove (contrary to recently-defended opinion) that the spleen does not preside over the digestion of albuminous matter. In the case of a dog deprived of his spleen for two years, the pancreas continued to digest fibrine.—*Le Progrès Médical*, December 18th, 1880.

Treatment of Cholera Infantum.—(*Union Médicale et Scientifique Du Nord-Est* for December 15th, 1880.)—Dr. Lutan, after speaking of the great mortality of this trouble and the inefficiency of the usual methods of treatment, recommends the following :

1st. The cessation, for a short time, of all alimentation—the immediate and probable cause of the evil. In this way you get rid of the exciting cause of the gastro-intestinal irritation, and you cease to furnish fresh material for the tonic ferments to attack, with the effect of promoting their inanition.

2d. Give, at discretion, pure cold water, in order to give tone to the intestines, and also to render the blood more fluid.

3d. A gradual return to a plain, nutritious and easily-digested diet could then be effected. There should be an avoidance of sweet things, and the tonic action of the cold water should be kept up. For medication use the following :

R_x. Silver nitrate.....centigrade v.

Distilled water.....grammes xxv.

Mix.—Dissolve.—S : Dose.—A small tablespoonful every hour, or every two hours, according to the gravity of the case.

[The same plan of treatment (described under the title of *diète hydrique*) has been recommended by Dr. Lutan in the case of typhoid fever, and in all gastro-intestinal affections which combine a tendency to inflammation.—R. H. L.]

Treatment of Sterility Due to Acidity of the Utero-Vaginal Secretions.—The conclusions of Dr. Charriere are as follows :

1st. There are certain cases in which an acidity of the utero-vaginal secretions (determined by the use of litmus paper) present the only bar to conception, the spermatozoa being destroyed by the contact of the acid liquid before conception can occur.

2d. To remedy this abnormal condition, recourse must be had to an alkaline treatment, comprising the employment of alkaline drinks, baths and injections.

3d. The acidity then disappears, the secretions become neutral in reaction, and the obstacle to conception is removed.

4th. In this way we may account for the cure of sterility in those frequenting the hot-alkaline and sulphuro-alkaline springs.—*Union Médicale* and *Le Practicien*, December 21, 1880.

Proceedings of Societies.

Clinical Society of Maryland.

Stated meeting held in Baltimore, October 15th, 1880. T. S. Latimer, M. D., President, in the chair; E. F. Cordell, M. D., Reporting Secretary.

Extensive Destruction of the Face from Syphilis.—Dr. Michael exhibited a photograph and cast of a woman, aged 53, whose history was as follows: At the age of 13, an ulcer appeared on her soft palate, which, notwithstanding the use of various remedies, extended, perforating the soft palate, destroying the hard palate and nose, and all the adjacent parts, and leaving an immense excavation in the middle of the face. The lower eyelid of the right eye was drawn down upon the cheek, whilst the corresponding upper eyelid was so much involved as not to close and protect the cornea. At the age of 40 she took some "blood-purifying medicine," under which the ulcer healed up. Meanwhile she had married and had several children. The disease has never re-appeared. From the history of the case, Dr. M. concluded that it was due to inherited syphilis.

Dr. J. E. Atkinson had made a cast of a patient several years ago, presenting similar, though not so extensive destruction of tissue. The subject was a young girl, aged 16. The ulceration had begun eighteen months before, as a sore upon the upper lip, which extended, destroying the cartilages of the nose, and involving the eyelids and forehead. On further inquiry, he learned that when she was nine years old she had had a sore throat and discharged a piece of bone from the nose; and that her father had been in the army and had had an extensive eruption early in the war. When

first seen, the margin of the excavation on the cheeks and forehead presented a circular tuberculated surface, suggesting lupus. But this is not apt to affect bone, and, according to Hebra, lupus, commencing in the throat, is unknown. Specific treatment was therefore begun, and at the end of one week there was marked improvement; in six weeks the disease had almost entirely healed. The duration of Dr. Michael's case was against the supposition of its being syphilis. In inherited syphilis the ulceration may be superficial and slow, and different in character from that which occurs in acquired syphilis.

Dr. Christopher Johnston exhibited a cast almost identical with that shown by Dr. Michael, which he had obtained many years ago, at the Almshouse, from a woman suffering with acquired syphilis. She had lost her hair, and her head was covered with scars; her sight was almost destroyed, and the conjunctivæ and eyelids were involved in cicatrices; her nose was destroyed—a large cavity occupying the centre of the face—and her upper lip was reduced to a narrow band.

Syphilitic Paralysis.—Dr. Morris reported two cases: One in a man of 50, with paraplegia, which involved the sphincters; the other in a woman, with facial paralysis (including the tongue). Is the latter of peripheral origin, or does it (as Charcot and H. Jackson say) always depend upon a clot?

The Removal of Particles of Iron from the Interior of the Eye-ball by the Magnet.—Dr. Theobald said much had been written of late upon this subject. Knapp had recently related two cases, in one of which he succeeded, whilst in the other he failed. Dr. T. had had an opportunity to test the method the previous week in the case of an employee of the B. & O. R. R. A man working in the shops had a piece of steel enter his eye, producing a wound of the cornea, iris and lens, and nearly, if not quite, destroying vision. Dr. T. procured several strong horse-shoe magnets, which were capable of sustaining their own weight. These were bound together and then one pole was passed over the ball, without producing any apparent effect. Chloroform was then administered, and a slender rod of soft iron, attached to one of the poles (the extremity of which was capable of holding up a small key), was passed several times through the wound into the vitreous chamber. Still the steel was not dislodged. The ball was then enucleated and the steel found in the centre of the vitreous humor; it was magnetized, which might have been due to the proximity of the magnetic point. Dr. T. declared himself skeptical in regard to the alleged virtues of the magnet in this connection.

Dr. Uhler had experimented with the magnet, not only in cases of the eye, but also in other situations. We must take into consideration the period at which the operation is attempted, and also whether the foreign body is fixed or movable. The position that the magnetic needle assumes will show the presence of a needle in the tissues, as Smee first pointed out. Some of the operatives in metal carry habitually a magnet for the purpose of removing particles of steel which lodge in the folds in the conjunctivæ. In the case cited, turning the patient on his face might have brought the particle of metal forward within reach of observation, if it were movable. Was there any evidence of injury at the back of the eyeball?

Dr. Theobald replied that there was slight abrasion of the choroid. Before enucleation, however, the vitreous was so cloudy that nothing could be seen with the ophthalmoscope.

Three Operations for Stone in the Bladder.—Dr. Bevan reported the following cases:

I. Male, aged 62; had had symptoms of cystic trouble (retention of urine, bloody and offensive urine, attacks of cystitis, frequent micturition, discharge of ropy mucus, pain in the head of the penis, emaciation, etc.) commencing eight years before. In introducing a sound, a grating sensation and a *distinct click* were elicited at the right side and base of the bladder. A calculus was diagnosed, which was believed to be encysted from the localization of the symptoms, and because the sound could not be passed over more than what seemed to be its upper surface. A second examination, on a subsequent occasion, elicited the same symptoms, which were magnified by the use of Billroth's sounding-board. Lithotomy was advised and undertaken with the approval of several colleagues, but on cutting into the bladder with Smith's lithotome, there was found to be, not a calculus, but simply a hypertrophied bladder, with localized phosphatic inerustation. Death followed twelve hours after, from shock.

The frequency with which this error is committed was shown by allusion to Erichsen, Gross and others. Dr. Bevan thought the use of the small lithotrite would obviate such mistakes on his part in the future

II. Male, aged 55 years; for ten years suffering from frequent and painful micturition, bloody urine, the flow of which often stopped suddenly and then returned, etc. The introduction of the sound, on two occasions, detected a calculus, the click being tolerably distinct. Lithotomy was per-

formed with Smith's instrument, and a mulberry calculus, weighing ninety-three grains, removed. There was no hæmorrhage. On the fourth day the patient was passing *all* his urine through the urethra. On the 10th day he was up, and his subsequent improvement was rapid and satisfactory.

III. A female, aged 36, suffering for six years with difficulty in retaining urine, with stillicidium, urine frequently bloody and containing ropy mucus, great pain in the region of the bladder, constipation, and bad general health. These symptoms originated in a protracted labor, requiring the use of the forceps, and followed by a vesico-vaginal fistula, for which she had been operated on several times with only partial success. Examination by the speculum failed to reveal the position of the cervix uteri, nor could it be felt by the touch, although a rectal examination detected the uterus in its usual position. It was found to be incarcerated in the bladder, from which the menstrual flow passed away with the urine. A large calculus was found lying beneath the meatus urinarius, which, after dilatation of the urethra with forceps, was broken up and removed in fragments. It was phosphatic in character. The power of retaining water was regained in three days, and recovery was otherwise satisfactory. Three months afterwards a smaller calculus was removed from the same patient in the same manner. Seven years later a third, and after nine years a fourth was extracted, the cervix being still incarcerated in the bladder.

Analyses, Selections, etc.

Prepared by HUGH M. TAYLOR, M. D., Demonstrator of Anatomy, etc., Medical College of Virginia, Richmond.

Venereal Diseases—Prevention of their Spread.—At the recent meeting of the American Public Health Association, held in New Orleans, Dr. Albert Gihon, Medical Director United States Army, and Chairman of the Committee upon the above-mentioned subject, submitted a valuable report. He urges the importance of taking steps to check this greatest of evils, but thinks, before we can hope to overcome the opposition of the narrow-minded or uninformed moralists, that the public must be made to appreciate the extent to which the disease prevails, and the infinite ways of its dissemination. To combat the statements made by some, that

this disease is not as common or as incurable as represented, he quotes Gross and Sims as saying that a greater scourge than yellow fever, cholera and small pox combined is quietly installed in our midst, sapping away the foundations of society, poisoning the sources of life, rendering existence miserable and deteriorating the whole human family. Sir Thos. Watson said that it counts its victims, not only in the ranks of the vicious and self-indulgent, but among virtuous women and innocent children, by hundreds and thousands. Statements such as these do not need to be backed by numerical data of questionable value; but as far as figures can be evidence, the statistics carefully collected by Dr. Francis R. Sturgis, of New York, are worthy of consideration. A summary of the poor treated in 1873 at the various hospitals and dispensaries of the city of New York enabled him to estimate the total number of venereal and syphilitic poor patients; but this did not include those treated at their homes (often by themselves), at physicians' offices, by apothecaries, and by quacks. Notwithstanding these omissions, of 280,530 poor persons receiving aid at public institutions, 12,341 suffered from venereal diseases—5,045 of those being syphilitic; that is, 44 in every 1,000 were venereal cases, and 18 per 1,000 syphilitic. In Mr. Wagstaff's report of the amount and kind of venereal disease under treatment at certain charitable institutions in London in the year 1868, it is stated that 69 in every 1,000 patients were venereal—35 of these being syphilitic; and he estimates that among the 1,500,000 of poor population of the metropolis, who receive medical relief for diseases at hospitals, dispensaries, and at the hands of parochial medical officers, about 1 in 14 is affected with venereal disease of some kind—this not including midwifery cases, nor the classes excluded in Dr. Sturgis' report. During the same year, 9,796 venereal patients were treated at the hospitals at Paris, and M. Lecour, Prefect of Police, estimating these as one-fifth of the total number of venereal patients treated at their homes by physicians, and who seek relief at the hands of apothecaries and charlatans, gives a sum total of 48,980 cases—about 1 in 40 of the entire population—a formidable array, and one probably much below the real amount. The last year's report of the Marine Hospital reports includes patients treated at the dispensaries and surgeons' offices out of hospitals. Neither these nor the naval and military returns include the large number of cases not registered, and treated surreptitiously by apothecaries, nurses and hospital stewards. Officers generally avoid the necessary

exposure, and their cases, consequently, seldom appear on the returns. Enough has been shown to establish this fact, that at least one man in every thirteen in the naval service of the United States—last year one in ten; and one in every nine whites in the army, and of the negro troops one in six; one in every seven in the British army, and one in every four of the Merchant Marine Service presenting themselves for treatment at Marine Hospitals and Dispensaries, is affected with some form of venereal disease. These statistics do not afford an adequate idea of the extent of this evil, as they do not include the myriads of the (happily) still-born and the feeble offspring who bring their taint into the world with them, after having diseased their mothers during their intra-uterine existence; nor of those other myriads, contaminated by mere contact with the infected who mingle with every crowd. It is indulging in no speculation to say that syphilis is communicated by nurses', lovers', and even mothers' kisses. Gross has seen many cases communicated by kissing; and he tells of fifteen women, nine children and ten men diseased by midwives who had chancre on their fingers, contracted in the exercise of their profession, and who had thus carried the disease from house to house. Dr. J. Marion Sims has seen a cook and a chambermaid, with syphilitic ulcers on their fingers, and nurses infected by the children who had been born of syphilitic parents, in turn affecting sucking babies born of healthy parents, and has known a drunken vagabond husband to contract syphilis in a low brothel and communicate it to his wife, who unwillingly gave it to her four children simply by using the same towel and washbowl. The report introduced many other examples of the diverse methods of infection.

The Committee is of the opinion that when the public know by how many thousand channels this disease may assail them, they will demand protection at any cost; and they urge upon the Association the necessity of promulgating the fact, that so long as syphilitics are allowed to go unrestrained, the spotless women and innocent children share the danger of contamination with the libertine and prostitute. This Association should let it be known that this fearful pest may be communicated by the blankets of the sleeping car, the sheets, towels and napkins of the steamship, hotel or restaurant; by the hired bathing dresses of the seaside resort, and the costumes rented for the fancy ball; by the chipped edges of a coffee-cup, as seen at most hotels and eating-houses, and their half-cleansed knives, forks and

spoons; by the public drinking vessels in the railway car or station, as well as the public urinal or closet; by the barbers' utensils; by the brush and comb in the guest chamber; by the hatter's measure, or the borrowed or sample hat; by the surgeon's or dentist's instruments, or the vaccinator's lancet; by the broom or dust-brush handled by a parlor maid, or by the spoon touched by the mouth of the cook or nurse; by the toys sold to children in the streets by vendors, with poisoned lips and fingers; by playing-cards and visiting-cards, which have been used, and especially by car tickets and by the paper money which circulates in a city where 50,000 syphilitics are at large; by the loaned pipe, or cane, or glove; by the grasp of a friend's hand, or the kiss of an accepted lover; by the son to his mother and sister; the husband to his wife and unborn child, and by the latter to its mother.

The Committee was charged with the suggestion of some plan to lessen this scourge. Compulsory examination of prostitutes, and the seclusion of those diseased, has undoubtedly done good. But this has not effectually combatted this great evil; because while discovering women who are diseased at the weekly or semi-weekly visit by the doctor, it leaves them unprotected against the intermediate approaches of infected men, and the unconscious contamination of their subsequent visitors; because, further, minute abrasions, hidden deep in the vagina, or among its rugæ, may escape detection; because a woman may undoubtedly be the vehicle of communicating disease from one man to others without herself becoming infected; because women who are not avowed and registered prostitutes—such as shop girls, domestic servants, saloon attendants, ballet girls, choristers, kept women and the like—are exempt from examination, but chiefly because it ignores the men, who are the original contaminators of the prostitute.

In view of these facts, the Committee recommends the enactment by the legislatures of the States a law constituting it a criminal offence or misdemeanor to communicate, or to aid or abet in any way the communication, of a contagious disease, such as small pox or syphilis, and empowering and requiring health officials to establish such regulations as may be necessary for the prevention, discovery, treatment and suppression of such diseases. The plan proposed implies the appointment of sanitary officers in every hamlet, village, town and city of the country, subordinate to and controlled by the county, municipal or State boards of health, and empowered to investigate and discover every preventable cause

or form of disease—syphilis included. They further recommend the establishment of special or lock hospitals for the gratuitous treatment of all venereal affections; and in the absence of such hospitals, provision should be made for the treatment, without charge and without unnecessary exposure of the victims, by health officials. The cost of treatment for venereal lesions has become so heavy that thousands are deterred from consulting a physician through fear of being fleeced.—*Detroit Lancet*, Jan., 1881.

Medicinal Eruptions.—Dr. Arthur Van Harlingen, of Philadelphia, contributes to the *Archives of Dermatology*, October, 1880, an interesting resume of the eruptions supervening upon the administration of certain common therapeutical agents. Among the number he includes arsenic, belladonna, bromine, cannabis Indica, chloral, copaiba, cubebs, digitalis, iodine, mercury, morphia, opium, phosphoric acid, quinine and cinchona, salicylic acid, santonine, strychnia, tar, carbolic acid, turpentine, resin and petroleum. Gourbeyre has known dermatitis of an erysipelatous character to result from the use of *arsenic*; also papular eruptions resembling the lesions of measles, or those of the familiar papular syphiloderm of the face, though of a less coppery hue. The same writer has seen vesicular and urticaria-like eruptions. Various writers have alluded to the occurrence of herpetic eruptions in connection with the administration of arsenic, pustular and ulcerative eruptions with gangrene, boils, carbuncles and bistre taint of the skin has also been noticed. Little or nothing can be stated certainly with regard to the pathology of the arsenical eruptions. The eruption produced by *belladonna*, or its *alkaloids*, is sometimes designated as erythematous, and at other times as scarlatiniform. It is said to be more common among children, and appears often after the smallest doses, coming out very soon after the medicine has been taken, and disappearing a few hours later. The eruption usually first shows itself about the upper portions of the body, the face and neck, and ordinarily goes no further, although cases have been recorded where it has invaded the entire surface. It is bright red in color, and sharply defined, and usually not accompanied by burning or itching, nor desquamation. Where large poisonous doses are taken, the symptoms of the eruption are more marked. Its external employment may also give rise to a symptomatic rash. The mechanism of this eruption seems to be a secondary vaso-motor paralysis of a marked character. The *bromides*

of ammonium, potassium, sodium and lithium produce acneiform, papulo-pustular, erythematous, muco-papular, pustular, furunculoid and urticarious eruptions; also a brownish discoloration. Dr. S. Weir Mitchell describes several cases in which the continuous administration of doses of a drachm or more daily for two or three months gave rise to a furunculoid eruption, in the course of which groups of lesions were observed to break down into deep, coin-sized ulcers, with everted edges, and with a strong tendency to accumulate pus and epithelium, giving the lesion a rupia-like appearance. Our knowledge of eruptions caused by *cannabis Indica* is limited to a single reported case. A gentleman having taken two gelatine-coated granules, each containing half a grain of the extract of *cannabis Indica* before retiring, woke up the next morning covered over nearly the entire body with an eruption of strictly disseminated vesicles, varying in size from a pin point to a split pea, elevated above the skin from one-half to two lines, roundish in shape, tensely distended by their contents, and containing a clear, serous fluid, but no pus and no blood. When mature, they were well formed, persistent, without tendency to rupture, and yellowish-gray in color. The eruption was not like miliaria, but developed from papules, and many papulo-vesicles could be seen on the lower extremity. An erythematous eruption is most commonly observed as a result of the ingestion of *chloral*. Urticarious eruptions are also often met with in connection with the erythematous variety. Papular eruptions due to the ingestion of *chloral* have been reported. Vesicular and pustular eruptions have also been noticed. Occasionally more severe forms of skin disturbances, as purpura, follow upon the prolonged use of *chloral*. The eruption produced by *copaiba* often follows immediately on the ingestion of the medicine, and in certain cases provokes such intense febrile reaction that it must be immediately suspended. It is in most cases a perfectly characteristic papular erythema or roseola. It appears, by preference, upon the hands, and covers the entire surface. Sometimes true erythema is produced. Miliary, vesicular, and urticarious forms of eruption have been described. These forms may sometimes be mistaken for syphilitic erythema; but the onset of the latter is not so sudden; there is no itching, and the place of election is different. Finally, the disagreeable odor of the skin in the *copaiba* eruption, owing to the large quantity eliminated by the various glands, is a diagnostic point of value. Cubebs only rarely cause skin troubles, and then after the use of

considerable doses, and especially in young patients. Two cases of a scarlatiniform eruption and a papular erythema, after the ingestion of *digitalis*, are recorded. Like the eruptions due to bromine, those due to *iodine* have, some of them at least, been familiar for a long time. The form of the iodine eruption may be erythematous, papular, vesicular, bullous, pustular or hæmorrhagic. The rationale of these eruptions, therefore, seems to be that there are conditions in which iodine, when present in the blood, attacks and disorganizes the vessels at certain localized points. It may be considered that the iodic papule, the iodic bulla, and the iodic purpura spots, represent different degrees of injury to the blood-vessels. In the first we have a limited œdema with congestion of the vessels; in the second, an effusion of serum, with more or less of the formed elements of the blood; in the third, destruction of the wall of the vessel and hæmorrhage.

Hydrargyria—the term used to indicate the condition induced by mercury—has been divided into three varieties: the first, *hydrargyria mitis*, is characterized by marked heat, with itching of the skin, followed by redness about the scrotum, the inguinal region, the abdomen, and the upper part of the thighs. The skin is full of minute vesicles. On ceasing the administration of mercury, the exanthem disappears rapidly. The second variety, *hydrargyria febrilis*, succeeds the other form if the administration of the mercury is continued. The skin then becomes the seat of more severe inflammation. The vesicles take on a coppery tint and increase in size; they become purulent and dry, forming crusts like those of eczema. The mucous membrane also becomes involved. There is considerable fever, angina, extreme thirst, and a cough with sanguinolent expectoration. The third form shows symptoms of marked intensity. The eruption brought out by either ingestion of *morphia* or *opium* is usually of an erythematous character, often resembling closely that of scarlet fever. It is more apt to attack the flexor surfaces, and is accompanied by severe itching. Occasionally complete desquamation of the epidermis takes place over the palms and soles. A case is recorded of the occurrence of a bullous eruption in the case of a young girl who had been taking *phosphoric acid*. The prevailing type of *quinine* eruption is erythematous, closely resembling the rash of scarlatina or of measles. Urticarious, vesicular and pustular eruptions have followed the use of *salicylic acid*. *Santonine* has been known to produce white wheals surrounded by a red blush. *Strychnia* has produced an eruption which lasted six weeks. Ery-

thematous eruptions have resulted from the ingestion of *tar*; also a case of erythema urticarium following the employment of *Lister's bandage* is reported. The eruption observed after taking *turpentine* in large doses is most frequently an erythematous redness of the skin.

A Piece of Iron Removed from the Eye with an Electro-Magnet.—The case was reported to the Suffolk District Medical Society by Dr. B. Joy Jeffries. The iron was imbedded in the cornea, at the outer angle, and projected into the anterior chamber just behind the sclero-corneal juncture. There was a cut towards the middle of the cornea, through which the metal might have passed. There was no distinct track through the cornea over the foreign body. As the metal could not be approached on the outer side in the blood-bearing tissue, it was decided to cut down upon it on the corneal side, and attempt to keep it in place or from falling into the anterior chamber, by the constant near presence of the strong electro-magnet. On the approach of the magnet, the foreign body was seen to move, and by applying it against the cornea the metal was drawn to it and removed. Dr. Jeffries spoke of two cases, previously reported, where the simple magnet had been used, and four where the electro-magnet was employed. These were where the foreign body was in the aqueous or vitreous chamber, but not imbedded in any tough tissue of the eye. Without such a powerful magnet as he was enabled to use with Dr. Bradford's apparatus, the piece of iron could not have been drawn out of the cornea.

Dr. H. W. Bradford exhibited and explained the method of construction and the testing of electro-magnets, and showed those that had been used in the cases cited by Dr. Jeffries. He showed that with the improved electro-magnet, weighing about four ounces, a weight of more than twenty ounces was easily sustained at a distance of one inch from the end of the core of the magnet, by use of a single bi-chromate-of-potash cell.

Dr. C. H. Williams spoke of a case similarly treated last summer. The patient presented himself with a small wound near the centre of the cornea, and said the eye had been hit by a chip of iron. A spindle-shaped piece was found stretched across the anterior chamber, one end being held in the corneal wound, and the other being planted in the iris. A wound was made in the periphery of the cornea, in the hope of being able to seize the foreign body with an iridectomy

forceps near its bearing on the iris, and thus extract it; when the forceps were introduced, the aqueous humor escaped, the iris moved the foreign body and fell across the pupil, and each attempt to grasp it caused it to be pushed more behind the iris and more out of sight and reach. Dr. Bradford in a few minutes arranged his electro magnet, by means of which the iron was drawn forward through the pupil against the under surface of the cornea, where it was seized and extracted. In a number of the reported cases in which the magnet has been used, the damage has been slight and the vision good. Magnetized forceps have been tried, but are not sufficiently powerful. With any electro-magnet it is well to have points of several different shapes and sizes. —*Boston Med. and Surg. Journal*, December, 1880.

Destroyers of Contagion.—The writer of this article in the *Boston Journal of Chemistry*, January, 1881, alludes to the fact that modern science has let in a flood of light upon the cause of many illnesses, and the nature of the contagion upon which their propagation depends. Not only has the cause of disease been traced to agents external to the body, but the exact form of these disturbing organisms has been pointed out. They consist of minute solid particles, probably, in most of the cases, of a vegetable nature; they are, therefore, non-gaseous, and in no respect comport themselves like gaseous bodies. The contagious principle of fever is a cork-screw-like spirilla; in other diseases it appears as a large motionless rod; in others it appears solid, ragged, and nearly round. These bodies float in the atmosphere in clouds, and when inhaled, or when they come in contact with abraded surfaces, inoculation occurs, and the disease is of the type peculiar to the nature of the specific poison. The bodies start in the circulation a morbid chemical action, or serve as a ferment, disturb or devitalize the blood, and thus produce most serious illness. Malarial fevers, measles, diphtheria, scarlet fever, small pox, and many other alarming diseases result from blood poisoning through the action of these curious external agents. So long as the nature of the noxious material was unknown, the chemical agents, as disinfectants, deodorants, antiseptics, etc., were selected to satisfy the most various and dissimilar theories as to its nature and properties; but since a better understanding has been reached, a more intelligent and scientific selection and use of these substances can be made. It is important in families where cases of zymotic disease prevail, that an accurate knowledge should

be possessed as to the methods of preventing a spread of the contagion. Every physician should be well informed on this subject, but, unfortunately, some of them are not. Of course the septic germs in cases of small pox, diphtheria, etc., fall upon the floors and walls of rooms, upon the bed, and upon the clothing of attendants. Upon these deposits, the usual solid or liquid disinfectants exposed in the room have little or no effect; nothing but thorough cleansing and ventilation, with the use of gaseous disinfectants, will expel them. The best method of cleansing clothing is by the use of heat. Experiment has shown that no form of contagion can withstand a temperature of 220° F.; therefore clothing placed in a hot box two hours, with dry heat above that of boiling water, is thoroughly disinfected; or it may be soaked in boiling water with the same results. Vaccine matter may be taken as a type of virulent material, and experiments upon this poison prove that disinfectants, to be effectual, must be used in much larger quantity than has usually been considered necessary. If the destroying agent is of an acid nature, the virus must be rendered permanently and strongly acid. The end desired is to destroy the inferior power completely. It is not generally known that carbolic acid, in quantity equal to two per cent. of the virus, is incapable of doing this work upon vaccine virus. It deprives it of its infective power for the time being, but this returns as soon as the carbolic acid has escaped through exposure to the air. Chlorine is a gaseous body, and is in ordinary cases an effective disinfectant. It is, however, inferior to sulphurous acid. This is the most valuable agent we have, but, unfortunately, it is not safe in inexperienced hands. A room in which a case of infectious disease has been placed, can be thoroughly cleansed by burning a little sulphur in the absence of the inmates. The sulphurous acid is a gas exceedingly disagreeable and irrespirable, and great caution is necessary in its use. Permanganate of potash is a true disinfectant, having oxydizing powers of high capacity; but it must be used in much larger quantities than are usually employed. Its high cost is a bar to its free use, and it is not clearly seen how it can ever become much cheaper. Chloride of lime, freely used, is a good disinfectant; but when it is placed in vessels in small quantities in sick rooms, or sparingly sprinkled in drains, it has but slight influence as a destroyer of contagion. Carbolate of lime is a cheap and good disinfectant, but it must be used in large amounts to be useful. Several of the metallic salts have powerful antiseptic properties; for example, the proto-

sulphate of iron. This salt, in strong solution, is a valuable agent, and is worthy of notice.

At this point it should be stated that carbolic acid and the metallic salts used in small quantities are preservative agents, and may actually prolong the life of contagium by preventing its destruction through natural processes. There are numerous patented antiseptics and disinfectants which are perfectly worthless, so far as any influence upon septic germs is concerned. It is very important that heads of families, and especially physicians, should clearly understand what is required when selecting an agent for practical use. There are good deodorants which arrest putrefaction and fermentation and yet completely fail to destroy contagious particles. Contagious particles of all forms are imbedded in an epithelial or albuminous covering and they do not yield their vitality readily, and never to improper agents.

A Case of Calcified Fibroid of the Uterus is reported in the *American Journal of Obstetrics* for January, 1881, by John N. Upshur, M. D., of Richmond, Va. In the October number of the *American Journal of Obstetrics*, for 1879, Dr. J. T. Everett reports the successful removal of a tumor of this kind, with a plate of the specimen removed, and makes the statement that a review of medical literature since the days of Hippocrates, shows only fifty-one cases, and only thirty-three of these are well authenticated. Dr. Upshur now adds another to this list, though without successful removal of the tumor.

He first visited S. A. J., colored, æt. 34 years, in November, 1869. Her general health was good, she had never borne children. Examination of the abdomen and *per vaginam* revealed a fibroid tumor, located in the fundus of the uterus, about the size of a large orange, very firm, smooth, and elastic in feeling. She suffered no inconvenience from it, except the weight and occasional metrorrhagia, nor did she have any constant treatment for its removal, two years elapsing once without attention of any kind, and up to a year before death she was constantly employed as a cook. During this time, the only appreciable change in the tumor was its slow but steady increase in size. For the past year she has been almost constantly confined to her bed. Hemorrhage more or less constant, and not easily controlled, kept up for some time. Diarrhœa was more or less constant and very exhaustive. For several months past, in the absence of

hæmorrhage, there was a profuse, purulent discharge from the womb. She died August 25th, 1880.

Autopsy, 15½ hours after death. Emaciation extreme; only the abdominal and pelvic viscera were examined. Some chronic peritonitis had existed. The uterus measured about twelve inches from os uteri to fundus; the cæcum was so closely adherent to the womb that a portion of it was removed with it. Ovaries, Fallopian tubes, ligaments could not be identified. The os uteri was very small and contracted. On the left anterior surface of the cervix was a subserous fibroid, the size of a hen's egg, and another of the same size, posteriorly—both very hard, but entirely fibrous in character. The cavity of the womb contained on its right lateral aspect a sub-mucous fibroid with sessile base, entirely fibrous; the uterine mucous membrane was extensively ulcerated, and looked as if it had taken on carcinomatous disease, thus accounting for the purulent discharge before death. The upper two-thirds of the womb was occupied by a tumor the size of a cocoanut, and as hard as a granite rock, very heavy; it was found impossible to cut into it further than the surface, revealing its calcified character.

For more than a year before death the tumor had possessed an unusually hard, nodular feeling to the hand, and Dr. Upshur is sure that the calcification had been going on for a long time and was very slow in its progress.

Dr. Upshur believes that fibroid tumors are much more common in the negro race; cheloid tumors on the ear and other portions of the body, and which are fibrous in character, are much more common with them than with the white race. If this be true, can there be anything in the race which predisposes to this variety of disease, or in their habits or conditions of life? So far as the sexual passions are concerned, they approach much nearer the brute creation, and have greater moral obtuseness as to a promiscuous indulgence of the same than the white race. Certainly it is the experience of us in the South, that the negroes require different management when sick, and have not the resistant force to disease or the recuperative energy which the white race possesses.

Dr. Goodell (*Lessons in Gynæcology*, page 242) says that this calcification is analogous to the cretaceous transformation in pulmonary tubercle. This would, in a measure, explain why one would expect to find an effort at cure of this character in the negro, because of the low organism of a fibroid, when it

would be less likely to be the ultimate result of tubercular deposit in the lungs—a more highly vascular organ.

Dr. Upshur calls attention to the fact of *sub-serous* fibroid, *sub-mucous* fibroid, and *intramural fibroid* which was *calcified*, existing in the same uterus.

Hygienic Treatment of Phthisis.—In a clinical lecture, Prof. Alonzo Clark, of New York City, remarks: The treatment of phthisis is, in a very great degree, hygienic. Medicines frequently do no good at all. A gentleman came to me a good many years, who had been for a year under my advice and was improving, and he said, “Doctor, do you remember that you have never sent me to the druggist with a prescription.” “Yes, I remember that, and a great many others that I have not sent to a druggist with a prescription.” But I had sent him off to Mexico to travel on horse back. The first requisite in treatment of this disease is exercise in fresh air, either on horse back or on foot, and it should be indulged in up to the point of producing fatigue. Then food comes next in importance. The kind of food of most importance is that which contains some oil. Milk fulfils the indications most frequently, and is most assimilable. He usually advises them to take a couple of glasses with their breakfast, and a couple with their dinner, and two more, if they can, in the evening. Cream also may be taken. Cod-liver oil is very valuable, but many persons are disgusted with it, and take it at any rate with difficulty. It is very rare that one finds a person disgusted with the cream of cow’s milk, and it fills all the indications of cod-liver oil. The emulsions of cod-liver oil have to be taken in larger quantities, because the oil is diluted about two-thirds. Of course, if there is a sinking spell, or faintness, or anything of that sort, a single potion of brandy or whiskey may be used; but for habitual use, he rarely prescribes alcoholics. A little sherry, made bitter with a teaspoonful of compound tincture of gentian, taken before eating, will awaken the appetite and give the stomach tone. This, aided by [Scheffer’s] pepsine, is as good as anything else to prevent vomiting. Cod-liver oil poured upon beer disguises its taste—it is more bitter than anything else. He attaches great importance to friction of the whole body every night and morning, with dry flannel; also to sponging the body at night with tepid water. He has seen a number of cases recover under such hygienic and dietetic treatment.

In the same journal in which we find Dr. Clark’s lecture published (*Detroit Lancet*, November, 1880), we find an ar-

ticle from the pen of Dr. T. N. Reynolds, on "Mental Influence and General Management *versus* Specifics in the Treatment of Pulmonary Phthisis." With regard to medication, Dr. Reynolds thinks the better rule would seem to be to avoid too much reliance on specifics, and attend almost wholly to the restoration of the usually disordered digestion, assimilation and elimination, and the removal, if possible, of any complicating malady. In only rare cases should the disease be dismissed as incurable, or at least as not greatly amenable to treatment. In advising people to leave home, a great many things should be considered besides the climate sought. If there is no reasonable hope of improvement, it is cruel to send such patients away from comfortable homes, and it is bad in any case to send them where they will be subjected to the depressing influence of seeing a number of cases similarly affected. Patients of domestic, gay or romantic temperaments should be sent where these several indications will be fulfilled. Whether at home or abroad, the associations, amusements and occupation should be so adapted to, and impressed upon the over-apprehensive mind, as to leave no time for dread; and the patient should be kept, if possible, as much absorbed in surroundings, and as oblivious of self as a little child.

Gunshot Wound of the Heart.—Dr. M. M. Robbins reported to the Aurora Medical Society a case of gunshot wound of the heart, which resulted fatally in eleven days. The ball from a pistol entered the arm about five inches below the shoulder joint, and emerging about two inches below the axillary fold, struck the chest over the fifth rib, and then passed inwards and downwards to the fourth intercostal space. Beyond this point, the probe would not pass. He improved quite rapidly; had no pain except from bronchitis, which he had contracted previous to the injury. There were no symptoms indicating that the ball had injured any vital organ. On the eighth day he was out of doors. On the eleventh day he died suddenly.

A *post-mortem* fourteen hours after death was made. On opening the chest, a considerable quantity of blood was found in the left pleural cavity, and the pericardium was filled with blood. About one-half of that in the pericardium was in the form of a recent clot. No old clot could be found. The ball struck the upper border of the fifth rib, described nearly a right angle with its previous course, perforated the pericardium, struck the left ventricle upon its anterior sur-

face, about two fifths of the distance from the base to the apex, passed into and through that cavity nearly horizontally, and lodged in its posterior wall, through which it nearly passed at the time of injury. At this point there was a stillate rupture. It is possible that the walls had been thinned by being worn by the roughened surface of the ball after its lodgment. There were old adhesions of the pleural surfaces at the left of the heart, which accounted for the pain in that region, which attended his cough. One of the aortic valves was ossified. One of the pillars of the columnæ carneæ was located immediately over the point where the ball entered the ventricular cavity, and this may possibly have prevented, or helped to prevent, the flow of blood through the wound.—*Chicago Med. Jour. and Exam.*, Dec., 1880.

Treatment of Enlarged Prostate and Cystitis by Drainage Tube Above the Pubes.—Dr. John M. Taylor reports in the *Philadelphia Medical Times*, December, 1880, a case of cystitis with enlarged prostate and recto-vesical fistula occurring in the practice of Dr. Ashhurst, which was treated after the plan suggested by Sir Henry Thompson, by introducing a tube into the bladder through an opening above the pubes. The subject of the operation was advanced in years, and had, for several months, suffered from inflammation of the bladder and great enlargement of the prostate. There was no retention of urine with vesical distention and secondary overflow, such as is so often met with in cases of prostatic hypertrophy; but, on the contrary, the bladder was very much contracted, the patient micturating, on an average, once in every half hour or hour, with intense pain, and the catheter not bringing away more than a fluid ounce of very offensive and dark-colored urine. The patient declared there was an opening between the bowel and the bladder, and that he had, on one occasion, passed several grape-seeds, *per urethram*; but, as there was no escape of urine from the rectum, and no appearance of fecal matter in his water, this was supposed to be a mistake, though, it was afterwards found, such an opening actually existed. From the fact that there was no urinary retention to require the use of the catheter, from the fact that its use increased the pain and irritation, and as ergot, chlorate of potassium, etc., did no good, the case was thought to be one in which it would be justifiable to adopt Sir Henry Thompson's suggestion of establishing a direct communication with the bladder above the pubis—an operation which finds its analogies in cystotomy for rectal stricture, and in

tracheotomy for occlusion of the larynx. The operation has been practised in five cases by Sir Henry Thompson himself, with decided, though only temporary benefit in each instance; and a similar procedure has been employed by Dittel, of Vienna, and by Prof. Keyes, of New York; but, so far as is known, has not been heretofore attempted in Philadelphia. The first step in the operation was to inject about three fluid ounces of tepid water into the bladder; the next step was to introduce into it, *per urethram*, a long styleted tube made by Mr. Gemrig, according to Sir Henry Thompson's description. This was made to pass the anterior wall of the bladder up above the pubes; and then, confided to an assistant, Dr. Ashhurst, made a longitudinal incision, about half an inch in length, exactly in the median line of the abdomen, cutting down cautiously upon the bulbous end of the stylet, which, followed by the tube, was made to project through the wound. The stylet being next withdrawn, a tube shaped like a tracheal canula, and two and a quarter inches long, just large enough to fit inside of the large urethral tube was introduced its whole length into the projecting end of the latter; and, as this was slowly withdrawn, it was thus carried into the bladder—its safe lodgment in the viscus being announced by a free gush of urine mingled with water. The tube was held in place by tapes passed around the hips and thighs. The only point in which the operation differed from Sir Henry Thompson's, was in the use of a metallic, instead of a flexible vesicle tube. This modification was decided upon, Dr. Ashhurst said, because he could not obtain a flexible tube which would be sufficiently permanent to be of value. The great facility in cleansing and re-introducing the metallic tube would compensate for the risk of increased irritation. To guard as much as possible against this, that tube was made with a movable plate, after the manner of a tracheal canula. The operation was followed by no constitutional disturbance, and there was a measurable relief from pain.

Triplets With Teeth.—Dr. Wm. J. Love, of Wilmington, N. C., contributes notes of unusual triplets, to the *North Carolina Medical Journal*, for January, 1881. Mrs. Black, aged 45 years, a native of North Carolina, gave birth to triplets on December 11th, 1880, in Wilmington. This was her second confinement and second pregnancy. She is a North Carolinian, age 45 years. The presentations were all of the head, the labor was natural. Two of the children were girls, one a boy. The first girl weighed $4\frac{1}{4}$ pounds.

She had two middle upper incisors and two upper canines, and lived five hours. The second girl weighed 5 pounds. She had two middle upper incisors and left upper canine, and lived five hours. The boy weighed $6\frac{1}{4}$ pounds. He had four upper incisors and two upper canines nearly through. He lived five hours.

Goitrous Affections in Females.—In 1866, Dr. M. Gonzalez Echeverria, then of New York City, more recently of Paris, wrote a monograph on an allied subject, the conclusions of which, in many particulars, coincide with those reached by Edward W. Jenks, M. D., LL. D., of Chicago, Ill., in an article on "*The Relations of Goitre to Pregnancy and Derangements of the Generative Organs of Women*," published in the January number, 1881, of the *American Journal of Obstetrics*. After writing a thoroughly practical paper, Dr. Jenks arrives at the following conclusions:

1st. There is indisputable evidence that there may be endemic, and occasionally epidemic causes, producing goitre in men as well as women; yet the evidence is equally indisputable, that every form of goitre occurs among the latter in a much larger proportion than among the former.

2d. The fact has long been established, that in certain occult conditions of women, increased vascularity and enlargement of the thyroid gland may be produced as a consequence of some unusual excitement of the generative organs.

3d. Violent parturient efforts may cause the vascular form of goitre, but under the influence of pregnancy there may be gradual enlargement of the thyroid glands lasting for years; while, on the contrary, a goitre produced by one pregnancy is sometimes cured by a subsequent one.

4th. There are reasons for believing that, when goitre is produced by any disorder of the generative organs (excepting pregnancy), it is due more commonly to functional than to structural disease.

5th. It is not a consequence of phlegmasiæ, or malignant disease of the uterus or its annexes, that goitre is developed; on the contrary, the disorders which more commonly cause or precede goitre are flexions, congestions, functional diseases of the pelvic organs, or those disorders of menstruation which are of systemic origin.

6th. As many goitrous necks among women are due solely to some derangement of their generative organs, the use of topical applications or remedies, however administered, un-

less made use of to remedy the cause, will be of no avail, and constitutes irrational and unscientific treatment.

7th. In the prognosis of goitre, we should always bear in mind the possible complications when the tumor is of considerable size—prominent among which are compressions of the trachea, leading to dyspnœa, or even dysphagia, and compression of the recurrent laryngeal nerve, producing harshness of the voice, and sometimes aphonia.

8th. When the goitre is not large and is manifestly dependent upon some derangement of menstruation, functional uterine affection, or has suddenly developed in consequence of pregnancy or violent efforts in labor, the prognosis is favorable, although it is not certain that there will be a rapid disappearance of the deformity.

Painless Operation for Ingrowing Toe-nails.—The *Independent Practitioner*, of November, 1880, says: Dr. J. H. Converse says, a painless remedy for ingrowing toe-nails consists in wedging cotton under the free margin of the nail, placing over it a piece of adhesive plaster with a hole cut into it the size and shape of the nail to be removed; then moisten the end of a pencil of caustic silver and apply it to the part to be removed, taking care not to touch any other portion. The next day the nail will have assumed a black or brown appearance. Upon raising the nail it will be found to have become separated from the sub-adjacent tissue, and all that is required to complete the cure is to clip off the dead portion.—*American Medical Journal*.

Book Notices, &c.

Practical Treatise on Diseases of the Skin. By LOUIS A. DUHRING, M. D., Professor of Diseases of the Skin in Hospital of University of Pennsylvania, etc. Second Edition, Revised and Enlarged. Philadelphia: J. B. Lippincott & Co. 1881. 8vo. Pp. 644. Extra Cloth, \$ 6.00. (For sale by Messrs. West, Johnston & Co., Richmond.)

As excellent a standard work on skin diseases as was the first edition—now some four years old—it is scarcely comparable to the present, so superior is the latter in many respects. Indeed, we find so many of the chapters of the first edition rewritten and rearranged, and also we find so much of new matter introduced in the second edition, that one

would scarcely recognize the first edition as the parent of the one now before us. Not less than fifteen or sixteen diseases, not treated of formerly, occupy special places in the revised work. This issue will be gladly received by the profession at large.

Since the new chapters introduced are mostly on rare cases of cutaneous affections, and since much of the new matter added to the chapters contained in the first edition relates chiefly to pathological advances, we cannot advise those of our readers who have the first edition to lay that aside simply to purchase the second; but, by all means, let those general practitioners who have no standard monographic work on diseases of the skin purchase this revised edition. There is no special department of the practice of medicine, scarcely, regarding which general practitioners are more ignorant, and yet regarding which they so often feel the need of more information.

Differential Diagnosis: A Manual of the Comparative Semeiology of the More Important Diseases. By F. DE HAVILLAND HALL, M. D., Assistant Physician to Westminster Hospital, London. Second American Edition. Extensive Additions. Edited by FRANK WOODBURY, M. D., Physician to the German Hospital, Philadelphia. Philadelphia: D. G. Brinton. 1881. 8vo. Pp. 223. Cloth. Price, \$2. (By mail, from Publishers.)

The first American edition of this book, issued in 1879, was very useful to every practitioner who secured a copy; and the present (second) edition is a great improvement on that because of its numerous additions by the American editor. So far as it goes, this second edition is the best one book on differential diagnosis that has come to our knowledge; but it is not yet complete enough to fill the exact requirement of the general practitioner who looks to such a book, as the title of this would lead him to do, to find out the differences between many diseases of usual occurrence. For instance, in a recent case of some doubt, we were anxious to find a table compiled of the differential diagnosis between cancer of the stomach and chronic ulcer of the same organ. It took us a day or two of study to enable us to decide satisfactorily upon a diagnosis, which decision might have been greatly facilitated had we been able, in such a book as this, to have found a comparative tabular statement of the diagnostic symptoms and signs in the beginning stage of chronic ulcer of the stomach. The rapid exhaustion of the first edition, requiring a second within less than two years, should

serve as an indication to the editor that the third edition should be more complete as to the number of subjects of which the book treats. But in the present form of this second edition, we most cordially recommend it as being the best published practical work on the subject of which it treats.

Fever: A Study in Morbid and Normal Physiology. By H. C. WOOD, A. M., M. D., Professor of Materia Medica and Therapeutics, and Clinical Professor of Diseases of the Nervous System in University of Pennsylvania, etc. Philadelphia: J. B. Lippincott & Co. 1880. 4to. Pp. 258. Cloth. (From Messrs. West, Johnston & Co., Richmond.)

This is a reprint from the stereotype plates of the Smithsonian Institution, at Washington, No. 357, intended as one of the series of "Contributions to Knowledge," for which class of "contributions" this institution was founded by the generous donor, and which is now protected by Congressional legislation. We are told, in the Preface, that Dr. Horace Hare was a co-worker in its preparation, until his fatal illness caused him to "rest from his labors." Dr. Hare's part was especially to have charge of the chemical portion of the research.

This work, as carefully prepared as it is from experiments upon pigeons, rabbits, kits and cats, dogs, etc., besides recording a *few* clinical cases in the human subject, comes to the conclusion, implied in the aphorism, "evolved from shadowy premises," by Galen, that the essential of fever is "præternatural heat." We have no space to discuss the "essential" question with our distinguished author; but we have long believed that *combustion* of animal tissue is the *essential* of fever, and *hence* the præternatural heat. Many grades of inflammatory action attend ill patients, without marked elevation of temperature, while still we must confess, as practitioners of medicine, that all the symptoms are "feverish;" or else we must invent a new term, and have a different understanding of what is intended by the word *fever*. On the other hand, practitioners are constantly seeing cases where the temperature is greatly elevated; and yet, without the use of the thermometer, the abnormal elevation of temperature (or "præternatural heat") would not have been noticed by the symptoms of the case. In one case, especially, if not others, under the knowledge of the writer, when there were two physicians of recognized clinical capability to judge of such matters with him, examinations of the patient, *except for the almost accidental use of*

the thermometer, did not suggest the idea of an abnormal elevation of temperature. But when the thermometer was applied, it was found that the temperature, during the stage of "extraordinary combustion," reached up to 105° F. The writer of this notice, as an ordinary practitioner of medicine, without taking any other view of Dr. Wood's conclusions, is convinced that, had the author been more of a general *practitioner* in his studies and observations than a theorist, he would have done the profession an immense deal more of good.

Many *practitioners*, however, are as much one-sided in their notions as is our experimental physiologist. We have long since reluctantly come to the conclusion, while we were yet believers in the full understanding of the theory of morbid conditions and their so-called "rational treatment," that there are many things in our philosophy past finding out; and that we must accept facts as they occur without ability to find out their explanation. This very question of fever is one of the subjects, regarding which a modification of opinion must occur. "Preternatural heat," we aver, is not the commanding symptom nor sole condition of *fever*, although such a state is usually found in conjunction with fever. Without being able to decide what the state of the system must be to decide the existence of *fever*, we leave the question open. Perhaps in less than fifty years, with the study that is now being devoted to it by our ablest students, we will have a different definition—notwithstanding the assertions of pure materialists. "Preternatural heat" may be a usual *symptom or sign* of fever in the human subject; but the fever itself is not any more an entity or even the cause of the combustion than is the smoke that evolves from the smoke-stack of an engine the motive power of the properly-adjusted or properly-supplied boiler of a steam-engine.

But while we think the author has taken a too narrow view of his subject, and while we think other conclusions than those he has deduced from his own experiments—whether self-performed or observed—might be adduced that would open the channel of thought to new suggestions, and possibly lead to an advance in ideas regarding this all-important subject, we must say that the details recorded by Dr. Wood are extremely valuable to one who may follow up his line of special study. But we think Dr. Wood has been too exclusive as to general clinical experience. He has taken a too materialistic view of his subject. As well might we cite as a purely physical illustration that potassium blazes when put

upon water; and with as much correctness we might add that so may fevered patients be worsted when put too entirely upon the so-called cooling treatment. At least, the practical result in practice sometimes justifies the conclusion.

If we were authority enough to give influence to a suggestion for practitioners, we would state, as a matter of observation, that there are *essentially* three kinds of fevers, if not more. One is an *essential* fever, in the sense that typhoid fever, scarlatina, measles and the like are now commonly regarded as essential fevers; and such fevers—with a knowledge, on the part of practitioners, that they cannot be much cut short by any plan of medication yet proposed—should be allowed to run their course, without special attempt at medication, unless we except the idea that fuel, in the form of food, fresh air, etc., must be supplied to compensate for material that we know must be exhausted—much as the engineer calculates for the amount of wood, coal and water that may be needed by an ocean steamer when she starts from any of our American ports for Liverpool, Glasgow, or other European harbor. Another class of fevers are subject to modification, or, even, entire repression, such as the *inflammatory fevers*. These may be assuaged by cold—by a depression of heat—just as we know that a sufficient quantity of water will put out a given amount of fire. We find illustration of this every day in seeing our city fire-engines at work upon houses or fire. An experienced fireman knows, by frequent observation, just as a practitioner of medicine ought to know, that he has put on enough of water. *Cold* does not stop a fire; frequently we observe that it seems to be a promoter of the incendiary's purpose. So, as observing practitioners of medicine, we find cases in which cold—constantly and effectually applied—does not reduce the fever; at all events, however we may chill the patient by external applications, he still progresses on the road to death. Then, as a third class of fevers, we might invent the term of *specific fevers*; to represent such a class of fevers as usually arises from malarial causes, for which there have been discovered almost specific remedies in quinia, arsenic, and other agents known to practitioners of medicine. True, in rare instances, such specific fevers may be overcome by other agents, such as sudden fright, plunging in cold water, and the like. But this latter statement leads us, unfortunately for the author, to recognize even another form of fever which might be dubbed a *nervous fever*, which is not to be overcome by remedies calculated solely to overcome preternatural heat, unless we regard such

remedies as bromide of potassium, ergot, chloral, etc., as refrigerant remedies.

In view of the ordinary brevity of notices of books sent us for notices, we have only to remark that the subject under discussion is a most important one to every practitioner; and while the writer of this notice recognizes his inability to cope with the learned author of the book before him in matters of record of experiments, he does still claim to have some practical knowledge of the subject in hand. Had the writer of this notice the same space in which to record the grounds of his off-hand criticisms that the author has had in the present publication, he might be able to show better that Dr. Wood has taken a too one-sided view of his general subject, in this production of his generally astute mind and careful analyses of facts.

While we do commend this book as containing a faithful record of facts, so far as observed, and as a useful one to any specialist in the line of the study of fevers, we feel constrained to say that we cannot advise the purchase of the work by ordinary practitioners—notwithstanding it has received such honors by those in authority who have ranked it as one of the series worthy of position in the "Smithsonian Contributions to Knowledge." We regret the more to make this *quasi* endorsement only, because we recognize the important practical contributions the author has made to practical medicine by numerous other valuable contributions to medical literature which are not apt to be forgot.

Photographic Illustrations of Cutaneous Syphilis. By GEORGE HENRY FOX, A. M., M. D., Clinical Lecturer on Diseases of the Skin, College of Physicians and Surgeons, New York; Surgeon to the New York Dispensary, Department of Skin and Venereal Diseases, etc. 48 Plates from Life, colored by hand, Complete in Twelve Numbers. Nos. 4, 5 and 6. New York: E. B. Treat, 1880. Pamphlet. 4to. Pp. 8 to each Part, besides 4 Hand-Colored Plates. Price, \$2 a Part. (From Publisher.)

Short of clinical cases themselves, we know of no means by which a practitioner can obtain so perfect and satisfactory an idea of the many annoying and perplexing cases of "Cutaneous Syphilis," as by a study of these *Photographic Illustrations*. In the three Parts before us, we have photographs of twelve of syphilitic skin diseases, which photographs are fully explained by the almost as graphically compiled text, which accompanies each of the plates. Here we have syphilitic papulosum et pustulum, S. pustulosum, S. pustulosum corymbiforme, onychia syphilitica, S. papulosum humidum,

S. papulo-squamosum, *hydroa pemphigus iris*, *eczema squamosum*, *S. squamosum circinatum*, *S. tuberculosum ulcerativum*, *S. squamosum gyratum*, *S. squamosum circinatum* and *S. tuberculosum*. We regret that we have not the space to give a fuller notice of these most useful publications. But we may give our readers some idea of their great value to practitioners when we say that each picture is a most faithful photograph, and each description in text is like an accurate biographical sketch of some person—not exalting or bestowing virtues that do not in reality belong to the subject, nor, on the other hand, underrating what should be made a prominent feature.

Yellow Fever: Its Ship Origin and Prevention. By ROBERT B. S. HARGIS, M. D., of Pensacola, Fla. D. G. Brinton, M. D., Philadelphia, 1880. 8vo. Pp. 76-iv. (From Publisher.)

The author here presents in book-form the substance of three articles which he has at different times contributed to as many journals. The book contains a great deal of useful and interesting general information relating to the general subject of which it treats in part. Dr. Hargis gives a full review of the evidence which made him a convert from his formerly opposing view, and which now convinces him that yellow fever is of *ship origin*, so far as the United States are concerned, and is preventable by absolutely perfect quarantine—quarantine especially of those vessels which cross the “dangerous Atlantic calm belts under conditions favorable to yellow fever development.” Perhaps it may be a criticism that the Doctor manifests a little too much feeling, which sometimes borders on personal reflections, regarding his opponents in belief. Such a style of writing makes him have the appearance of a partisan, while, in reality, he is simply in earnest in advocating his general views, with which, in the main, we must confess, we agree, from the evidence we have in hand, although objecting to the partisan manner in which he presents his case. Arguments, to have their historic effect of having been right, should not be sectional nor personal.

European Modes of Living, or the Apartment Houses (French Flats). By S. G. YOUNG, author of “Are Americans Less Healthy than Europeans.” New York: G. P. Putnam’s Sons, 1881. 12mo. Pp. 40. Paper. (From Publishers.)

This little book is worthy of perusal by every physician

and house-builder and law-maker. Written by a lady, it recognises, perhaps, a too one-sided view of her subject, giving, in some instances, undue importance to some things of fancy or prejudice, while some other matters of daily practical use are not considered. But, in the main, the book contains so much of useful, hygienic suggestions, that we would be glad if each person proposing to build a house would read it. We object much to the European custom of building houses of from four to six stories high, and of having "flats" for residences. Every family, whenever practicable, should occupy one lot. Outside of the matter of appearance, the Southern village system of residences is undoubtedly the healthiest of all plans yet proposed.

Use of the Cold Pack, followed by Massage, in the Treatment of Anæmia. By MARY PUTNAM JACOBI, M. D., and VICTORIA A. WHITE, M. D. New York: G. P. Putnam's Sons, 1880. 8vo. Cloth. Pp. 76. Price, \$1.25. (For sale by Messrs. West, Johnston & Co., Richmond.)

The authoresses of this book have made for themselves an enviable reputation wherever the study of the science of medicine is prosecuted. Their present work is more of a compilation—almost, indeed, a reprint of their contributions to medical journals on the subject in hand. Their conclusions are drawn from clinical observations chiefly. It might be a criticism upon their published work that they do not give a description of the processes or means of "packing;" for, while most of the eminent practitioners know how to practise the method, there are yet a majority of the rank and file of the profession who never "packed" any of their patients in the wet sheet or blanket; many who have not even witnessed the process; and many others still who do not even know that the usual acceptation of the term implies the wrapping up of a naked patient in a dry or wet cloth for the purpose of producing sweating. Massage is a term of comparatively recent general introduction, although the word itself is an old one, and the practice of Hindoo origin, meaning kneading—kneading the muscles of the body much as a cook kneads her dough. Our authoresses presume somewhat too much upon the general information of the profession at large—as at present graduated by many colleges, or allowed to practise medicine without having passed examinations before regular city or State Boards of Medical Examiners.

In regard to the "cold-pack, followed by massage, in the treatment of anæmia," we have learned from this book a

lesson of importance. While, no doubt, massage is a measure of value, we had not thought before of the suggestion of packing anæmic cases as a means of cure. But the clinical records show that "packing" and "massage" are valuable in cases of anæmia; and they are agents or means which can be placed in requisition as well by the country doctor as by the physicians who walk the wards of well officered and thoroughly equipped hospitals.

PAMPHLETS, REPRINTS, ETC., RECEIVED, for which we have no room for further notice, but most of which can be obtained by enclosing a letter stamp for each pamphlet to the respective authors named.

Abdominal Method of Singing and Breathing as a Cause of Female Weaknesses. By CLIFTON WING, M. D., Boston, Mass. 8vo. Pp. 8.

Uses of Tar-Water in Obstetrical and Gynæcological Practice. By JOSEPH EVE ALLEN, M. D., Augusta, Ga. 8vo. Pp. 9. (From *Atlanta Med. and Surg. Jour.*, Oct., 1880.)

Chronic Bright's Disease in Children, Caused by Malaria. By SAMUEL C. BUSEY, M. D., Washington, D. C. 8vo. Pp. 14. (From *Trans. Amer. Med. Assn.*, 1880.)

Development of the Osseous Callus in Fractures of the Bones of Man and Animals. By HENRY O. MARCY, A. M., M. D., Cambridge, Mass. 8vo. Pp. 20. (From *Trans. Amer. Med. Assn.*, 1880.)

Anæmia in Infancy and Early Childhood. By A. JACOBI, M. D., Clinical Professor of Diseases of Children, College of Physicians and Surgeons, N. Y. 8vo. Pp. 27. (From *Archives of Medicine*, Feb., 1881.)

Report of the Pennsylvania Hospital for the Insane for the Year 1879. By THOMAS S. KIRKBRIDE, M. D., Physician in Chief, etc., Philadelphia, Pa. 8vo. Pp. 58.

Tetanus Terminating Fatally from Enucleation of an Eyeball. By JULIAN J. CHISOLM, M. D., Baltimore, Md. 8vo. Pp. 3. (From *Archives of Ophthalmology*, March, 1880.)

Editorial.

Dr. J. Marion Sims passed through Richmond on his sick couch in palace car about the last week of January for Charleston, S. C., to go to the home of his friend, Dr. Middleton Michel. About a week later, he went to Florida, his

intended destination, under the advice of his New York medical adviser, Dr. A. L. Loomis. His wife and Dr. Wylie, of New York city, attended him, in company with other friends. He had the personal friendship of the editor to telegraph him from Washington that he would be on the night's train, and when we went down to the depot to urge him to stay awhile in this city of health and he declined, while reclining, like a sick man, upon his couch, we feared the worse. He has been the subject of an attack of pneumonia, which Dr. Loomis says would possibly end in "old man's consumption" (or fibroid degeneration of the lungs), unless he came South. Accustomed himself to give commands, he promptly obeyed the demands of his doctor. Weak as he was, Dr. Wylie, as also he himself, informed us he felt better by the trip from New York to this city, and since he has reached Florida, we have been greatly relieved of our anxiety by learning from his son, now supplying the place of his father in New York city, Dr. Harry L. Sims, that Dr. Marion Sims improved every hour he was on the train and after he reached Charleston, and since his arrival in Florida. Let it be the daily prayer of each member of the profession of medicine, that this great man—the founder of gynæcological practice, whose name is familiar to the child of every doctor and many a patient in Europe and America, and who is so generally loved with filial devotion by those who know him personally—that his life may be spared, and that his years of usefulness and of pleasure to the profession may be yet extended.

Dr. Marion Sims, although beyond 60 years of age, is not an old man. He is a young man in all his physical abilities, having pleasantry, friendly disposition for the company of young people, ambition or desire still to do good to his fellowmen. He is young in all that makes true manhood—young in sentiment, personal regard, freshness of thought or suggestion, desire to do right. He strives to excel in doing good.

From the reports that we have of his physical condition, we hope to have him in attendance upon the session of the American Medical Association, to be held in Richmond in May of this year. After that, we are hopeful of his return to active practice, and of a like series of contributions of inestimable value to medical literature to that he has heretofore given.

To us of Virginia, Dr. Sims is especially dear and beloved. He has honored the Medical Society of Virginia by personal

attendance as a non-resident honorary member; and on no occasion of his visits has he failed to contribute something of true worth to the *Transactions* of the body. To the editor of this journal, he has given most timely, cautious, and, as we now discover, most wholesome advice. Indeed, we may say, that whatever success this journal has enjoyed—whether by foreign or American subscriptions—more than a half has been due to the influence and advice, directly or indirectly, of Dr. Sims. Hence, we cannot feel for him less than does a son for his father.

A Diploma Law of Ohio has just been enacted by the Ohio Legislature, which should meet the approval of physicians everywhere, and which should be imitated in every State where there do not exist already sufficient protective laws on the subject. By the Ohio law, we learn from the Cincinnati *Lancet and Clinic* of February 5th, 1881, that every one engaged in the issue or acceptance of fraudulent diplomas, or who may undertake to practise medicine under the protection of the same, shall be deemed guilty of a misdemeanor, and shall be fined a sum not exceeding \$1000, nor less than \$160, or imprisoned in the penitentiary not more than three years nor less than one year, or both, at the discretion of the court.

The Tennessee "Anatomy Act," as reported in the Nashville *Journal of Medicine and Surgery* for February, 1881, if it becomes a law, would greatly embarrass the progress of the study of anatomy in that State. For "violating graves and dead bodies," the party "shall be guilty of a felony," and shall be imprisoned in the penitentiary for not less than one nor more than three years, "at hard labor, and be rendered infamous." "The grand juries shall have inquisitorial powers as to the violation of this Act." We trust our professional friends of Tennessee will be able to prevail on their Legislative representatives not to pass such an Act, which would be injurious to the general good of their State and disparaging to the profession and injurious to the best interests of the citizens. How can one be a doctor who has no practical idea of anatomy?

Corrections.—We have occasion to make the following corrections: The sentence on twentieth line of page 758 (January number, 1881) should read, "I have a great fear of them,

and would not advise their use; and, in fact, everything can be accomplished with *solids* which can be accomplished by *fluid* medicaments for the uterine cavity."

On line 14, page 759, read, "Too powerful caustic or other applications to *their* uteri are not safe."

On line 26, same page, in place of *one-quarter* part, read *one part*.

In the December issue, 1880, instead of "Make twenty-five pills," it should read "Make *thirty-five* pills," and the formula containing iodide of potash should have grs. xx instead of gr. j.

Jefferson as a Vaccinator is the title of a most interesting historical paper, by Dr. Henry A. Martin, of Boston, Mass., published in the January number, 1881, of the *North Carolina Medical Journal*. It contains a number of *fac simile* letters of the great statesman to Dr. Benj. Waterhouse, of Cambridge, Mass., and other evidences to prove that Dr. Waterhouse was entitled to the credit of introducing vaccination into America—and that, too, in the face of opposition of the bitterest kind.

The Pittsburg Medical Journal is a new exchange which we cheerfully place upon our mailing book. The copy before us for February, 1881, has much of interest to the general profession. We wish it abundant success. It is a journal of about 30 pages monthly; price, \$2 per annum. Single copy, 20 cents. Dr. Robert C. Gallaher is editor and proprietor.

Obituary Record.

Levin Smith Joynes, A. B., M. D., LL. D., was born in Accomac county, Va., on May 13th, 1819; he died in Richmond, Va., January 18th, 1881, in the sixty-second year of his life. At the early age of 16 years, he graduated as Bachelor of Arts in the Washington College of Pennsylvania, and then spent two years in the academic department of the University of Virginia. He next began the study of medicine—attending lectures at the University of Pennsylvania and afterwards at the University of Virginia, from which latter insti-

tution he was graduated Doctor of Medicine in 1839. That he might feel himself the better qualified to enter upon the responsible duties of the physician's life, he went to Europe, and spent about two and a-half years attending medical lectures delivered by the then shining lights in medical history—mostly in Paris and Dublin. When he returned to America, in 1843, he located in his native county. In 1844, he removed to Baltimore, from which city he was called to Philadelphia, in 1846, to assume the Professorship of Physiology and Legal Medicine in the Franklin Medical College. After about two years or more (1849), he removed to his native county in Virginia, where he again resumed the practice of his profession, and continued in this line of duty until 1855, when he was elected Professor of the Institutes of Medicine and of Medical Jurisprudence in the Medical College of Virginia, in Richmond. In 1856, he was elected Dean of the Faculty of that College, which position, in conjunction with his Professorship, he held until the close of the session of 1870-1, when he resigned on account of failing health, and was then elected Emeritus Professor. A year's respite from his arduous duties as an experimental and demonstrative Professor of Physiology (to which chair he was elected in 1859), and from active practice, in a measure, restored him to health, so that when the State Board of Health of Virginia was established in 1872, he was elected its Secretary, and performed fully the duties of his responsible office, so far as the imperfect and ineffective laws of the State, as passed by the Legislature, would allow. All the apparent shortcomings of the Board of Health, so far as the duties of the Secretary were concerned, were due to imperfect legislation, and not to Dr. Joynes—to whom the State owes, and will ever owe, an unrequited obligation.

He was an early member of the American Medical Association—having joined that body in 1847. His judicial ability was generally recognized, as he was on the Judiciary Committee of Fifteen from all the States for the full term beginning 1873. He was, during every session of the American Medical Association, which he attended, honored with positions of trust and respect—so generally recognized was his ability.

Of the *ante bellum* Medical Society of Virginia (but little more, however, than a Society of the physicians of Richmond city), he was President in 1858. But in his connection with the larger, numerically, and more generally representative *post bellum* "Medical Society of Virginia," he was the dele-

gate, in 1876, to the International Medical Congress, which convened in Philadelphia, Pa. He was President of the Medical Society of Virginia for the session of 1878-9. In short, Dr. Joynes has occupied every important position of professional trust and confidence in Virginia that it was possible for any one practitioner to enjoy, and his death has caused a void which the profession of the State knows not how to supply.

During the Confederate war, he was always a "Conservative," as he has been since, in a political point of view. But yielding to the "powers that be," and ever ready to give allegiance to his native State, without any disloyalty to the existing general government, he accepted the position of Assistant Surgeon in the "Forces of Virginia" in April, 1861, which position he resigned in June, 1861, when the Medical Department of the Confederacy was thoroughly organized, and no longer needed the special help of the States.

Dr. Joynes' contributions to medical literature were numerous and valuable. No article of his ever went to press without thorough preparation in study of the subject of which he was treating and exactness in manuscript. Of the several papers he contributed to the pages of this journal, it may be remarked the precision of his manuscript was such that the editor never had occasion to correct paragraph, sentence, spelling, punctuation, or in any way change, alter or correct any portion whatever of the "copy" as sent in to this office for publication; so that any error that has ever occurred in the publication of any of his papers in this journal was "typographical," and not in manuscript. This is saying what we are unable to say—after seven years' of editorial life—of more than three or four other regular contributors to the pages of this journal within the same length of time.

We cannot undertake to give the titles even of all his numerous contributions to medical literature, by which the profession of the South especially has so much profitted, and which, in great part, have helped to give prominence to Southern medical literature. From notes in our possession, however, we may cite the following: "Obstetrical Auscultation," in the *American Journal of Medical Sciences*, January, 1845—at that day a new subject; his paper contained a great deal that was then fresh, and many practical suggestions, now commonly appreciated by the profession as correct, but without a due recognition of the authority from which the practical suggestions emanated. To the same

Journal, in January, 1852, he contributed an article of great value on "Emphysema of the Cellular Tissue in Labor"—a subject that has really never received sufficient attention on the part of authors of systematic works. "Obstruction of the Intestinal Canal by Worms" was the title of an article of great merit which he contributed to the May number, 1851, of the *Stethoscope*—a Virginia journal then published in Richmond. To the same journal he contributed numerous other papers, chief among them being "Ancient Superstition," October, 1851, "Colica Pictonum from Acetate of Lead," etc. To the successor of the *Stethoscope*—the *Virginia Medical Journal*, which afterwards became the *Virginia & Maryland Medical Journal*—he contributed many articles of value, the most important of which were on the "Legal Relations of the Fœtus in Utero," September, 1856; "Physiological Position of Fibrine," May, 1859. To the *Richmond Medical Journal*, which afterwards became the *Richmond & Louisville Medical Journal*, February and March, 1866, he contributed papers on "Nævus Treated with Collodion," "Value of Medicinal Pepsin," March, 1869; "Hæmorrhagic Malarial Fever," March, 1877. To the *Virginia Clinical Record*, he contributed a number of papers, some of which were of general interest, such as "Extracts of Beef," September, 1871; "Bromide of Zinc," July, 1873. To the *Virginia Medical Monthly*, Dr. Joynes was specially kind in his contributions of pen; and in all matters of advice, his counsels have shown themselves to be prudent and effective.

Dr. Joynes was married twice. In December, 1854, he married Miss Rosa F. Bayly, of Richmond; but she died in 1855. In June, 1858, he married Miss Susan V. Archer, also of this city, who, with her son, survive him.

The exact cause of Dr. Joynes' death seems to be somewhat undecided. For the last year, his health had been failing, with development of pain on the right side of his face, which pain for some time was attributed to malarial neuralgia. Soon, however, it was evident that disease of the antrum of Highmore had developed. This cavity was evacuated with great relief, and everything apparently was progressing favorably, when it was found that the disease of the antrum, which did not seem at the time to be possessed of malignancy, was extending upwards, involving other bony structures, until the floor of the cranial cavity, or, perhaps, roof of the left orbit, was penetrated.

At a conjoint meeting of the Academy of Medicine and other members of the medical profession of Richmond,

convened January 19th, 1881, to express their appreciation of the personal and professional worth of Dr. L. S. Joynes, Dr. James Beale was called to the chair, and Dr. Charles M. Shields appointed Secretary. The following tribute, presented by a committee appointed for the purpose, was unanimously adopted :

"By birth, education and association, Dr. Joynes was emphatically a gentleman in the broadest acceptance of the term. Courteous in manners, kindly in character, possessed of a very high order of mind, which had been enriched by all the treasures that years of unremitting labor in the field of science and literature had enabled him to accumulate, his patrons found in him a skilful physician, his profession an able counsellor, and his friends a delightful and instructive companion. The loss of such a man is a sad blow to the community in which he so long labored and was so much beloved; and the void he leaves in the professional rank will be hard to fill. While his professional brethren feel the deepest sorrow in their own loss, and the most heartfelt sympathy for his bereaved family, yet to all they would commend the consolatory reflection that the deceased has been transferred from the pains of earth to the beatitudes of Heaven.

The Academy and profession, as a further evidence of their sympathy with the family, will appoint pall-bearers, and attend the funeral in a body.

A copy of these proceedings will be furnished to the family.

Committee—Jos. A. White, R. T. Coleman, J. B. McCaw, J. S. D. Cullen and O. A. Crenshaw."

After the reading of the above resolution, Dr. J. Grattan Cabell made the following remarks :

"*Mr. President*,—I am unwilling for this occasion, when we are called upon for an expression of our appreciation of departed worth, to pass without at least an effort to add to the tribute offered to the memory of our late friend, Dr. L. S. Joynes.

An intimate personal acquaintance of more than forty years, gave me a full opportunity of knowing the man in every relation of life. We were students together in the Medical Department of the University of Virginia. We were then separated for several years—he going to Philadelphia and I to Baltimore—to continue our medical studies. Afterwards we were re-united in Paris, each endeavoring to avail himself of the clinics at the hospitals—all the time the ties of friendship being cemented by constant and harmonious intercourse.

I especially desire to recall his virtues as a friend, proved and tested by this long acquaintance. As such, he was not demonstrative, but constant and sincere. Nothing was allowed to mar such relations when once formed, except the painful conviction of misplaced confidence.

In all the duties of private life—as son, brother, husband and father—he combined the qualities that endeared him to the family circle.

Soon after the commencement of his professional career, his talents were appreciated. As we all know, as Professor and Lecturer, he acquired a reputation few men have equaled. As a practitioner, his admiring friends now bear a mournful recollection of his skill and affectionate attention. We, as Fellows of the Richmond Academy of Medicine, and as members of the regular medical profession of Richmond, can testify how valuable and instructive were his counsels. No subject, however intricate, failed to be elucidated when once he applied his mind to it. His mind was stored with medical information to such an extent as to form a regular encyclopædia for the instruction of its members; and it will be remembered with what modesty he imparted the knowledge acquired by study and application.

The void made in our Academy cannot be filled. I cordially endorse the resolutions offered by the committee in honor of his memory."

Dr. M. M. Walker made the following remarks:

"*'Vir ornatus et summis anîmi dotibus instructus'* are words familiar to us all; for they have been said of us all. Of how many are they true? But we stand to-day by the open grave of one who was an accomplished gentleman, graced and endowed with great gifts of mind—abreast with the age in the science of his calling and skilled in its arts. A great light has gone out in our midst. Some of you have been associated with him as a colleague, and are far better prepared to speak of him than I am. For years he labored assiduously for the advancement of science and the benefit of his fellow-man; and in the minds and hearts of the successive classes that have left the halls of the Medical College of Virginia, I am sure no name will ever be recalled with deeper reverence and respect than that of Dr. L. S. Joynes. Many before me have sat at his feet, and imbibed from his lips the fundamental laws of our science, enriched and illustrated by gleanings from his fields of experience; and the news of his death will be heard by hundreds of his students in this and other States with feelings of profound sympathy and sorrow. We have all known him as the acute diagnostician, the learned pathologist, the skillful physician, fertile in resource, clear and impressive in the expression of his opinions, irresistible with the truths he uttered. But we have known him also as a man and a citizen, as a husband, a father and a friend, discharging faithfully his duties in every relation of life; and we can proudly hold him up to the world as a

bright example of personal and professional worth; for who has ever heard one word which impugned his honor as a man, or derogated from his well-earned position as a man of science? Let us emulate his assiduous zeal in the cause of science, his untiring devotion to his profession, his genial kindness of heart, his conscientious discharge of his duty; and although we may not scale the heights which he reached (for his talents are vouchsafed to but few), we will have earned the respect and confidence of our cotemporaries, and above all, enjoy the consciousness of a life well spent.

I feel constrained to pay my humble tribute to genius and industry, to probity and honor, and all that is elevating in manhood and ennobling in our profession."

Dr. Joynes' remains were escorted to Monumental Episcopal Church (of which he was a communicant) by a large number of the profession, and thence they were borne to Hollywood Cemetery, where they were interred.

Dr. Joynes always enjoyed the fullest confidence of his professional brethren of the State, as well as of the community in which he resided. He was punctilious in the bestowal and recognition of courtesies, somewhat reserved in general company, except when his views were asked; and then, as if prepared by previous special study of the subject in hand, he would review so concisely and precisely the evidence in the case, and make such exact references to authorities and dates and events in his own experience, and would from these things, deduce such logical conclusions, that whenever he spoke, he riveted attention and carried conviction. As a friend, he was not demonstrative, but true. As a citizen, he represented the highest type of a Virginia gentleman. As a member of the profession of medicine, he was strict in conforming himself to every requirement of the "Code of Ethics," although himself, in medical politics, a representative of the more conservative element of the profession. With the editor of this journal, he was an advocate of the abolishment or amendment of certain specific "ordinances" of the American Medical Association. In his religious life, his was a life of consistency and devotion to the principles of the Christian faith.

Dr. Joynes' death was a calamity to the profession of the State. His now finished life was an exemplary one. "Being dead, he yet speaketh," and the influence of his life will long be felt by those who knew him, and who had been associated with him. We have no words to express our own grief at the loss of so useful and upright a practitioner.

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Original Communications.

ART. I.—New Remedies. I. Coto, Cotoin and Paracotoin. II. Duboisin. III. Quebracho Bark, Aspidospermin. By F. ROHNE, M. D., of Zurich, Switzerland, Honorary Member of the Rock River Medical Society. Translated by HENRY P. WENZEL, M. D., Secretary of Rock River Medical Society, Lomira, Wis.

When I undertake to present to your honorable Society certain facts concerning statistical observations made by myself, I do not pretend to give you conclusive scientific data of thoroughly tried and approved agents; but only to call your attention to these investigations for further experiments with the materials alluded to. Well do I know with what just distrust many of my honored *confrères* view the announcement of a new remedy—only to find in each of them a new representative which has been frequently introduced with *eclat* as a fashionable remedy, but like the ephemeral fly, shines a short time in splendor through the medical world, and then vanishes during the night. So sure as this skepticism is true, so unjust would it be to spill the child with the bath. Let us remember the old adage, *est modus in rebus*, and we will

cheerfully be satisfied with the maxim, "prüfet alles und das beste behaltet"—"Prove all things and keep the best."

I. CORTEX COTO, COTOIN PARACOTOIN.—Full communications on the use and therapeutical action of these preparations by Dr. Frommüller, of Fürth, Bavaria, will be found in *Allgemeine Medicinisch Centralb.*, No. 55, 1878, and by Dr. Stoyall Parsons in *New York Medical Record*, Vol. II, No. 15, 1878, and other literature on the subject—from which the following data have been compiled :

Coto bark is derived from a tree, growing in the forests of Brazil and Bolivia, which is sometimes classed with the laurels; by other authors, with the terebinthinates; but which, however, judging from its properties, possibly belongs to the piperaceæ. Chemical analysis gives "an ethereal oil, an alkaloid cotoin, which assumes a blood red color on the addition of concentrated nitric acid, and paracotoin, which, similarly treated, gives a yellow color. There is also a soft and a hard extract. The presence of cotoin and paracotoin has its analogues in the cinchona barks, which yield more or less quinia, quinidia or cinchonidia.

Prof. v. Goit, of Munich, made the first experiments in Germany in 1875, partly with powdered bark and partly with an alcoholic tincture. *R* Cortex cotoi, 1 part; 85 per cent. alcohol, 9 parts. The results of these investigations led to the conclusion that the remedy is a specific in variously manifested diarrhœas (*Archiv. fur Pharmacie*, 1875, Sept. No.). Similar results were obtained by Drs. Burkart and Riekert in the Ludwigsspital in Stuttgart (*Med. Correspond.*, Bl., October, 1877). The tincture of coto, cotoin, and lastly, the pleasant tasting paracotoin were used—the latter in double the doses 0.05–0.1 gramme [$\frac{5}{16}$ th to $1\frac{1}{2}$ grs.] every three hours. In certain cases, the action on the intestines was also followed by reduction of the evening temperature from $\frac{1}{2}$ –1° F. The urine generally gave cotoin reaction after five to six hours; a blood-red color on the addition of boiling nitric acid indicated cotoin, and yellow color paracotoin.

Since February, 1877, Frommüller has used coto and its preparations about 200 times: 62 times in lung tuberculosis, 38 times in typhoid, 12 times in catarrhal diarrhœa, 8 times

in acnte articular rheumatism, 6 times in gastritis, 6 times in pneumonia, 3 times in menstrual colic, twice in bronchitis, twice in swelled feet, once in rheuma, once in anorexia, once in diphtheria, and once in albuminuria. Colliquative diarrhœa was present 93 times, and hyperhydrosis 91 times. Both complications were frequently present together. Of the different preparations, tincture of coto, 100 drops daily, was used 109 times: cotoin, 0.1 to 0.3 gramme [= $1\frac{1}{2}$ to $4\frac{1}{2}$ grs.], frequently repeated, 24 times; and paracotoin, in larger doses, 5 times; the soft extract was also used, giving 2 to 10 pills daily, each weighing 0.006 gramme.

Coto not only exerts a marked influence in diarrhœa and hyperhydrosis, but is useful also in anorexia. In 85 cases of diarrhœa, coto tincture was used successfully 50 times, with benefit 26 times, and had no effect in 9 cases. After several days, many cases of colliquative diarrhœa relapsed, but were easily controlled, and normal stools soon followed. The principal advantage in the use of this remedy is that it is well tolerated and improves the appetite, instead of diminishing it, as opium, tannin, silver nitrate, etc. In hyperhydrosis, Frommüller ordered tincture of coto 91 times—34 times with perfect success, 36 times with improvement, and 21 times without results.

The beneficial action appears to consist in the augmentation of the (energetic) skin circulation, which usually lasts but one night, sometimes longer. Digestion is not impaired; the appetite is frequently improved. Tincture of coto was several times used in the morning as a stomachic against anorexia.

Cotoin was used 18 times in various diarrhœas, with total cures in 9 cases, improvement in 6 cases, and with no result in 3 cases. In 18 cases of excessive night-sweats, it was successfully used in 8 cases, partly successful in 9 cases, no relief in 1 case. In five of these 36 cases, paracotoin was exhibited. One hundred drops of tincture of coto are equal to about 0.15 gramme [2.315 grs.] cotoin.

The urine always gave the characteristic red color with concentrated nitric acid, after the exhibition of cotoin. This phenomenon always followed within six hours, and failed a few hours later.

After coto bark had proven itself a specific in bowel complaints, *without narcosis*, and satisfactory results had been obtained in adults, Stoyall Parsons used the tincture in the diarrhœas of children; and reports over 32 cases, all of which recovered, except one—a scrofulous child suffering from bronchitis. The dose, regulated according to age and purgation, was from 2 to 10 drops every 1 to 3 hours. The average length of treatment was four days, and cases recovered in which the lesion had existed from one to three weeks. Adults with obstinate diarrhœa received compressed pills of the powder, each containing 0.3 gramme [=4½ grains], and recovery followed in a short time.

Allow me to present my own observations in the following cases, which, though not a large number, indicate the use of coto preparations, and the results obtained, to complete the foregoing communications. When it began thawing in March, a cholera epidemic appeared—I might say, there was a cholera explosion, in Zurich and vicinity, which in ten days prostrated about 1,200 persons. The epidemic continued into April. Some were very severe cases of *cholera nostras*, and very fatal. In many cases, the stomach rejected all medicines; and I may here remark, the use of ice-pills and champagne was very satisfactory. In April, the cholera epidemic was followed by an explosive typhus epidemic (typhoid) which, in a short time, exceeded 120 cases. [In speaking of typhus, the Germans generally mean typhoid fever.]

During this severe epidemic, the greater part of my results obtained with coto preparations will be noted. A short sketch of the cases follows:

1. Man, 32 years. Hyperhydrosis nightly in a corpulently inclined individual; suppression of sweating after using 5.0 grammes [=1¼ drachm] *per die*; suspension of the drug was followed by mild relapse of hyperhydrosis; suppression of sweating during the use of tincture of coto.

2. Woman, 50 years. Epidemic catarrhal gastro-enteritis, with eight to ten stools per day; teaspoonful doses of tincture of coto thrice daily were given; cure in five days.

3. Spinster, 42 years of age. Tubercular ulceration of the bowels; erethetic, scrofulous; anorexia, sealing-wax tongue.

R_x Pulv. coto, 2 to 4 grammes [=31 to 62 grains] daily for the colliquative diarrhœa of six to twelve stools daily; little effect. Complains of irritation and burning in throat, though pulverized coto is given in emulsion. Cotoin, 0.3 gramme [=4.630 grains] daily is better taken; results slight. Increasing emaciation, with involuntary stools; after eight days of agony, death.

4. Maiden, 20 years. Acute articular rheumatism; catarrhal inflammation of bowels; severe chlorosis; hyperhydrosis. After the use of pulverized coto, 2.5 grammes [=38½ grains], per day, diarrhœa and sweating checked; under observation four days.

5. Man, 32 years. Typhoid fever; anorexia, coated tongue; eight to ten passages daily. Pulverized coto, 3.0 grammes [=46.4 grains]; in two days, cessation of diarrhœa with improved appetite; ambulant course.

6. Woman, 47 years. Epidemic catarrhal gastro-enteritis; climax, severe emesis; colliquative stools. Champagne ice-pills, pulverized coto, 2.5 grammes [=38.581 grains] per day; feeble action. After using preparations from another pharmacy, results good.

7. Man, 26 years. Typhoid fever; severe lung congestion; anorexia; rather frequent diarrhœa; moderate fever—not over 38.8° C. Pulverized coto, 3.0 grammes [=46.297 grains], per day; prompt action. Stimulation of stomach and bowels; rapid recovery.

8. Woman, 35 years. Diarrhœa; six to eight stools daily. Pulverized coto, 2.5 grammes [=38.581 grains], per day; recovery in two days.

9. Woman, 63 years. Cholérine; colliquative stools. Pulverized coto, 2.5 grammes [=38.581 grains], daily; curé in eight days.

10. Woman, 60 years. Typhus, moderately severe; four to six stools daily. Pulverized coto, and, later, tincture of coto, kept the irritable bowels quiet. Course of disease mild; appetite retained.

11. Man, 60 years. Typhus, severe; continued temperature, 39–40° C.; also, chronic cystitis. Frequent diarrhœa; ten to twelve stools daily. Pulverized coto keeps bowels quiet; recovery. Cystitis improved under benzoate of soda.

12. Woman, 70 years. Diarrhœa; left hemiplegia after apoplexy; softening. Diarrhœa checked with one dose of pulverized coto, 2.5 grammes [=38.581 grains].

13. Man, 41 years. Hyperhydrosis, with acute articular rheumatism. Tincture of coto, 5. grammes [=3iss], *per diem*; prompt but evanescent action; remedy acts every time.

14. Child, 6 months old. Infantile diarrhœa; eight to ten gray, watery, very fetid stools daily; emesis. Cotoin, 0.15 gramme [=2.315 grains], daily. Diarrhœa checked in three days; dyspepsia gone.

15. Child, $2\frac{1}{2}$ years. Typhoid fever; moderate diarrhœa. Pulverized coto, 0.4 gramme [=6.17+ grains], daily. Course very mild; looseness of bowels immediately checked.

16. Child, 2 years. Infantile diarrhœa; six to eight stools in 24 hours. Cotoin, 0.2 gramme [=3.086 grains], per day; cure in three days, with improved appetite.

17. Man, 33 years. Hyperhydrosis, with acute articular rheumatism. Tincture of coto, 5. grammes [=3iiss], daily, frequently repeated; sudden action. From this hour, the corpulently inclined patient is free from pain.

18. Woman, 55 years. Acute catarrhal enteritis, moderately severe. Upon the exhibition of 2.5 grammes [=38.581 grains] of pulverized cotoin, all symptoms ceased in two days.

19. Child, 2 months old. Infantile diarrhœa; usual course. Coto powder, .15 grammes [=2.315 grains], daily; perfect cure in two days.

20. Child, 1 month old. Infantile diarrhœa; erethitic-scerofulous child; poorly attended; in miserable garret room. Pulverized cotoin, 0.15 grammes [=2.315 grains], caused cessation of all symptoms; relapse in four days, and death in forty-eight hours, in spite of cotoin and stimulants.

21. Man, 40 years. Typhoid fever, with moderate diarrhœa; pulmonary implications; moderate fever; ambulant case. Pulverized coto, 3.0 grammes [=46.297 grains]. bowels checked; tongue cleaned; rapid recovery.

22. Woman, 56 years. Typhus; frequent pathognomic stools; temperature, 39° C.; furry tongue; fetid breath. Pulverized coto, 2.5 grammes [=38.581 grains], calms the bowels; falling temperature. Patient ambulant in four days.

23. Woman, 38 years. Severe diarrhœa of eight days' standing; great prostration. Pulverized coto, 2.5 grammes [=38.581 grains]. Cure in three days.

24. Man, 25 years. Diarrhœa and dyspepsia of ten days' standing. Pulverized coto, 3. grammes [=46.297 grains], checked the diarrhœa, as also a relapse, two days later.

25. Child, $1\frac{1}{2}$ years. Infantile diarrhœa, moderate severity. Cure in three days with pulverized coto, 0.25 gramme [=3.858 grains], daily.

26. Maiden, 17 years. Typhus, severe insomnia, continued for weeks. Only therapeutics was pulverized coto, 2.0 grammes [=30.865 grains], daily. Satisfactory course; mod-

erate temperature, seldom over 38° C.; bowel affection under complete control.

27. Woman, 24 years. Epidemic catarrhal enteritis, while nursing her own child. Pulverized coto somewhat checked the diarrhœa, which persisted for six days. Tincture of coto rapidly and completely checked the flux; moderate relapse; child not affected.

28. Child, 2 years. Infantile diarrhœa; usual appearance. A single dose of pulverized coto of 0.4 gramme [=6.173 grains], sufficed to cure.

29. Man, 44 years. Diarrhœa, severe action of bowels. Cure after exhibiting 3. grammes [=46.297 grains] powdered coto in the usual way.

30. Child, 1½ years. Infantile diarrhœa, slight. Cure with 0.4 gramme [=6.173 grains] coto.

31. Boy, 13 years. Diarrhœa; torpid, scrofulous patient; painfulness in peritoneal glands. Pulverized coto checked diarrhœa in a very short time.

This number of cases may be easily augmented, as I treat all similar cases, from the beginning, with coto preparations. The above cases may stand as an index of the variety of the uses of coto, and as reliable evidences of its action.

Formulating the foregoing results, we arrive at the following conclusions:

1st. Coto and its preparations belong to the most active anti-diarrhœal remedies.

2d. Its use in children has the invaluable advantage that a *narcotic effect is entirely excluded*.

3d. Coto is a valuable remedy against hyperhydrosis, though its action is evanescent.

4th. Coto is well borne, and acts as a stomachic in some cases.

5th. In mild and moderately severe typhus fever, the disease is influenced so far that the bowel affection is controlled, the course and duration of the disease checked and shortened, and the character of the affection moderated.

Regarding the reliability of action, it must here be remarked, that all preparations are not of equal activity. It will be necessary to give larger doses of *paracotoïn*, powder and tincture, prepared from the bark containing a large amount of paracotoïn, as they are feebler in action than the

preparations derived from the bark containing a large amount of cotoin. *Cotoin*, because of its pleasant taste and after-taste, is easily taken by children, and by older persons whose palate is vulnerable. How pleasant, for instance, is such a kind remedy to phthisical patients with ulcerated bowels and severe laryngeal affection, in which cases deglutition is a torture, making the use of irritant styptics or astringents absolutely unnecessary. Pædiatrics may certainly be congratulated on the acquisition of so valuable a remedy as *coto* to its armamentarium. If it be possible, by the use of *coto*, in future to abolish opium prescriptions for children who are hydrocephalously inclined, there will certainly be less danger, and many cases of coma avoided. In many, the stomachic action of *coto* was marked; and after its use in several cases of typhus, the tongue became clean and moist, and the appetite improved. There were no complaints of disorder of the stomach or bowels.

Cotoin is very pleasant to take when rubbed up with sugar. Pulverized *coto* is frequently rubbed up with sugar, and this powder is easily borne. When a better disguise is required, it may be given in emulsion, capsules or wafers. The tincture may be taken pure, but is best taken diluted with water.

II. DUBOISIN.—This alkaloid is prepared from *duboisia myoporoides*, one of the solonaceæ, growing in great abundance in the vicinity of Sydney, Brisbane and Cape York, in Australia, and on the islands of New Caledonia. In 1878, the alkaloid was simultaneously prepared in London and Paris from the watery extract imported from Sydney. In its action, *duboisin* is related to *atropin*, acting more rapidly than the latter. Prof. Gubler investigated its therapeutical properties (*Revue de Therapeutique Annales et Bulletin de la Société de Médecine de Gand*, VII, Vol. LVI, 1878). A subcutaneous injection of 0.0005 gramme [= .00772 grain] causes dryness of the throat and distorted vision in a short time. An injection of 0.001 gramme [= .015 grain] causes thirst, increased pulse rate, dilatation of the pupils, scarlet redness of the body, and a muscular weakness of the lower extremities, which precludes locomotion. In many cases,

this dose, even, cannot be given, as Gubler had collapse in a tubercular patient with night-sweats, after the injection of a milligramme. This remedy is useful in maniacal or alcoholic excitement, as a narcotic; Gubler used it successfully in a case, by hypodermic injection, when 0.05 gramme [=772 grain] morphia muriat. and 3. grammes [46.297 grains] chloral hydrate produced neither quiet nor sleep. This alkaloid is said to have an action similar to daturin, which was formerly used by magicians as an anæsthetic. It excels atropia in pupillary dilatation and the checking of night-sweats in phthisis, if given in appropriately moderate doses. The investigations of Drs. Wm. Muer and Sydney Ringer gave the following results: Rapid and extreme mydriasis of pupil. Ten minutes after instillation of a small quantity of the alkaloid—1 part of duboisin to 20 of water—the pupil was considerably dilated; $\frac{1}{6}$ th grain subcutaneously in a case of excessive night sweats, produced complete cessation of the sweat. All patients who received duboisin subcutaneously experienced a remarkable dryness of the throat. It has a further property of atropin, in that it counteracts muscarine, and like it, produces tetanus after a certain number of hours or days.

The apparent similarity of both alkaloids in their physiological action, by no means proves that they are identical bodies, as it is well known, the alkaloids of many solonaceæ produce similar physiological effects, though, chemically, entirely distinct bodies. The physiological experiments with duboisia conducted in Paris, in the clinics of Drs. Galezowsky and Wecker, corroborated those general facts obtained by the English physicians.

Dr. Wecker says; "Duboisia has a decidedly more energetic action than atropia, without the irritant properties of the latter. To the mydriasis, which develops immediately after instillation of duboisia, is rapidly added a complete paralysis of accommodation of the eye, while repeated strong doses of atropia are required to completely paralyze the ciliary muscle. Duboisia can be used in persons who could not tolerate atropia." My own observations on duboisia action were made in but a single case. But the action in this case

was so manifest that I can but add the results to the foregoing communication. A susceptible girl of 9 years was taken after she had passed through an ambulant course of scarlatina, with protracted convalescence, with symptoms of cerebral hyperæmia, which, after a time, was diagnosed tubercular meningitis. The treatment was conducted, with the consent of the consulting colleague, Prof. O. Wyss, in the usual manner. After narcotics, *per orem* and *per anum*, failed to relieve the symptomatic headache and the constant emesis, and when chloral failed to act, I gave a subcutaneous injection of sulphate of duboisia, from 0.0005 gramme of duboisia to 10.0 grammes of water [= .00772 grain to $2\frac{1}{2}$ drachms of water] a Pravaz syringe one-fourth full. The action was excellent. After three injections in 24 hours, the *vomiting was completely checked*, for the remaining course of the disease. The action on the pupils was as remarkable. Being narrowly contracted, they at once became mydriatic; besides, there was a considerable calming effect. The previous restless condition, accompanied by the pathognomonic hydrocephalic cry was followed by a somnolent rest-pause continued for hours, a blessing to both patient and friends. A momentary sensorial improvement also took place. The further course was predicted in advance. The termination of the disease was in death.

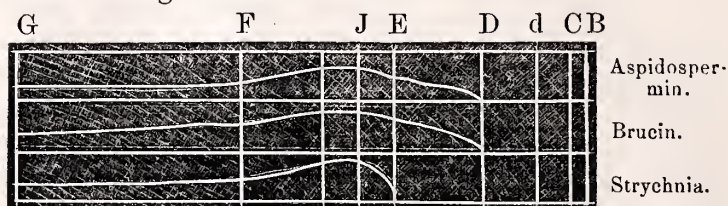
III. QUEBRACHO BARK—*Apidospermi*.—The following communication is from the pen of Dr. Winkelmann, of Stettin (*Indus. Blät.*, XVII, Jahrg. No. 20). Lately—especially since the last World's Fair in Paris—a new tanning material, called “quebracho,” is on a starring tour. The word signifies “breaking the ax” (Spanish, *quebrar*, to break, and *hacha*, ax), and is applied generally in South America to very hard woods. In the Argentine Republic, the home of this product, it is called “*Quebracho Colorado*,” or “*rosado*”—the wood of a tree named *Loxoppteringium Lorentzii Griesbachii*, from the family of the terebinthinales. It is a large, beautiful tree, with pointed, glistening leaves, which do not fall in winter. The wood is hard and durable; specific gravity, 1.38. When green, the wood is light yellow, the heart reddish. In longitudinal sections, the course of the dark vessels is plainly

seen; the rings appear on cross sections as light stripes on a red ground. The wood contains 15 per cent. of tannin. It is plentiful on the upper Parma.

"*Quebracho blanco*" is the wood of *aspidosperma quebracho* of the family apocynaceæ. Quebracho bark is derived from this tree. This wood is also difficult to split and hard; specific gravity, 1.16, but swims on water. Siévert says (*Tanning Materials of South America*, in *Pharmaceutical Journal*, 1878, No. 584) that there are two distinct varieties: Quebracho blanco in the province of Cordoloba, and white quebracho from Salta. The leaves of the Cordoloba quebracho have small spikes, which are absent in the other variety. White quebracho is similar to our German oaks. The leaves contain 27.5 per cent. of tannin, but the wood contains very little. Hœhmel succeeded in pointing out (R. v. Hœhmel, Gerbrinden, Berlin, Oppenheim, 1880) that quebracho bark is the bark derived from quebracho blanco. It appears in commerce in pieces, either flat or curled from 1 to 3, or even to 5. cm. [= .394 to 1.182, or to 1.970 inches] thick, covered with a thick outer bark, deeply fissured from 0.4 to 1.8 cm. thick. The latter is similar to the bark of the *populus nigra*. The inside is generally rose-red, sometimes yellowish, and covered with short, rough fibres. Between the outer and inner bark, rather wide, light-brown stripes, formed by cork masses, are seen on cross sections. The especial characteristics of the bark are the rings which are superimposed from 3 to 5 layers over each other. Cutting the bark tangentially, it is plainly visible that they principally compose the bark.

According to the reports in the *Deutsch Chemische Gesel.*, Berlin, Jahrg. XI, 2189, Fraude derived an alkaloid, *aspidospermin*, from the bark with the formula, $C_{22}H_{30}N_2O_2$, which, in its properties, is similar to quinine. In its native land, the bark is used as a remedy against fevers. In the same journal, Jahr. XII, B. 1879, p. 1558, is an article by George Fraude on a new re-agent for alkaloids—hyperchloric acid. If a minimum quantity of aspidospermin be boiled for several minutes with several ccm. of hyperchloric acid, of a specific gravity of 1.13 to 1.14, as it is found in commerce, it will be observed that the liquid becomes intensely red. The

color reminds one of Fuschine solution; it is permanent, and may be placed for weeks in light and air without any changes being observed. The same color appearances are also observed, with similar treatment, in strychnia alkaloids—brucia solution becoming dark, madeira colored, and strychnia solution reddish yellow. The similarity of the alkaloids also appears in the absorption lines of their respective spectra. The following lines will illustrate :



The reaction with perchloric acid is very sensitive; one ccm. [= 16 minims] watery solution of aspidospermin, which contains 0.0002 gramme [= .0031 grain] of the base, shows a distinct red color with 2 ccm. [= 32.5 minims] of perchloric acid; 0.5 ccm. [= 8 minims] brucine solution containing 0.0006 gramme [= .0093 grain] of brucine produces a red-brown color with 1.5 cm. [= 25 minims] perchloric acid; 1 ccm. [= 16 minims] watery strychnia solution, prepared boiling, containing about 0.0004 ccm. [= .0062 grains] strychnia, produces a plain yellow color with 2 ccm. of perchloric acid. In the following article (*loco. citat.* p. 1560 to 63), Fraude gives the proofs of the above mentioned formula for aspidospermin. Its solubility is as follows: One part of aspidospermin is soluble in 6,000 parts of water at 14° Celsus, which solution has a perceptibly bitter taste; 1 part aspidospermin in 48 parts of 99 per cent. alcohol at 14° Celsus; 1 part aspidospermin in 106 parts water and alcohol, and free ether at 14° Celsus. Fraude also made a series of examinations with concentrated sulphuric acid and other re-agents. He came to the conclusion that the chemical behavior of aspidospermin reminded him of the results obtained with strychnia, as described by Pelletier. I find the following extract in the *American Journal of Pharmacy*, vol. V., No. 2, 1880, taken from *Revista Farmaceutica* (Buenos Ayres), March, 1879, by Dr. Burgos:

“Quebracho blanco powder possesses all the physiological and organic properties of quinia powder. In color, it is between the red and yellow bark. It is prepared in the same way, and can be used for similar purposes, pharmaceutically, as an antiseptic *per se*, or mixed with charcoal; also as adjuvant to tooth-powders or electuaries.

The *infusion* has a sherry color, is clear and transparent. In certain conditions its effect is analogous to infusion of bark. It has a prominent bitter taste. It is prepared in the same proportion as the decoction.

The *decoction* is prepared as follows: Quebracho bark, 1 part; water, 20 parts. The decoction is deeper colored than the infusion, and when evaporated to one-third, has the port wine color. Dr. Mantagezza prepares a decoction—1 part of quebracho, 12 or 18 parts of water. This preparation is transparent so long as it remains warm; when it cools off, a rather heavy precipitate falls. On the addition of a few drops of sulphuric acid, partial transparency is restored, by solution of the alkaloid in the liquid. On adding ferric sulphate, a heavy, grayish-green precipitate forms, which is not changed on the addition of ammonia.

The decoction serves as tonic and febrifuge in those provinces where swamp-fevers are prevalent, and where quebracho grows.

Digestion is accomplished with sulphuric or acetic acid, after the method recommended by Fraude to obtain the alkaloid. After from four to six days, the liquid is as deeply colored as the concentrated decoction; and the more bitter the taste, the larger the quantity of alkaloid present. The same preparation may be used internally by using less sulphuric acid.

Tincture.—Pulverized quebracho bark, 1 part; alcohol of 56 per cent., 5 parts; macerate for eight days and filter. This formula is similar to that of tincture of cinchona of the [Germ.] Pharmacopœia.

Compound Tincture.—Pulverized quebracho bark, 1 part; alcohol of 56 per cent., 15 parts; orange peel, 1 part.

Wine.—Pulverized quebracho bark, 1 part; alcohol of 56 per cent., 2 parts; white wine (San Juan or Mendoza), 16

parts. Macerate the bark with the alcohol for twenty-four hours, then add the wine; macerate for eight days and filter. The use of these wines is recommended, as they contain but little tannin, and their peculiar aroma gives the preparation a pleasant taste.

An *elixir*, pleasant to the taste, is prepared by adding sugar to the wine.

Extract.—Both the aqueous and alcoholic extracts are prepared in the usual manner.

Syrup.—Quebracho bark, 3 parts; water, 32 parts; sugar, 16 parts. Boil the bark in the water, filter, evaporate to one-fourth, add the sugar, and prepare the syrup *secundum artem*.

Preparations of the Alkaloid.—Aspidospermin or quebrachin is insoluble in glycerine, dissolves in fatty and fixed oils, and may be taken in cod liver oil in larger quantities than quinine. The following formula is desirable: Cod liver oil, 100 parts; aspidospermin, 6 to 8 parts. Mix while warm. This preparation is of special advantage, and the combination recommends itself, as it may be given in small doses to produce stimulation of the peptic glands.”—(*Pharmaceut. Jour. and Trans.*, December 20, 1879.)

We owe the introduction of quebracho into the therapeutics of Europe to Dr. Franz Penzoldt, Chief Physician to the Poliklinik (Medical), and Privat Docent, of Erlangen. His first paper on quebracho and its favorable influence over various forms of dyspnoea appeared in No. 19 *Berliner Klinische Wochenschrift*, May, 1879. Dr. Penzoldt writes: “In the beginning of last year, my colleague, v. Gerichten, received, through Herrn Schickdauz, a quantity of bark of the tree *aspidosperma quebracho*, family, *apocynaceae*, from Brazil, for the purpose of preparing an alkaloid for A. Baeyer’s laboratory. V. Gerichten informed me that the South American physicians report this bark to possess febrifuge action akin to cinchona bark, and, with Baeyer’s permission, he gave me a portion of the bark for therapeutical investigation. The experiments were fruitful, though not in the direction expected. I could not discover any marked anti-pyretic action at the time; instead, however, I noticed a very favorable influence in various forms of difficult breathing. This

discovery, based on a very large number of observations, compels me now to give a complete communication (so far as possible), although I am still engaged in the sick room and by experiments to gain farther proofs."

In his further experiments on animals, Dr. Penzoldt used "a watery solution of an alcoholic extract of the pulverized bark," which preparation he found the most satisfactory in his future therapeutical trials. Formula: 10.0 grammes [=154.323 grains] pulverized bark were extracted for a number of days—usually eight—with 100.0 grammes [=1543.235 grains] alcohol, filtered, evaporated, dissolved in water, evaporated to dryness, and the residue dissolved in 20.0 grammes [=308.647 grains] of water.

Experiments upon healthy animals. (a) Frog. 0.5 grammes [=7.716 grains] of bark produce complete motor paralysis, which, with the attempted ligation [of the cord?] show it to be of central origin. Respiratory paralysis co-exists with paralysis of the extremities. Within a few minutes, diminution of heart-beats from 54 to 60 to one; half an hour later, there are but 8 to 10 beats counted. The slowing does not depend on irritation of the vagus.

(b) Guinea pigs. Subcutaneous application of (equivalent to) 1.0 gramme [=15.432 grains] bark—paresis of extremities, and difficult breathing with 2.5 grammes [=38.580 grains]. Death after voluntary motor paralysis, great dyspnoea, and finally convulsions. Dyspnoea shows itself in deeper and slower breathing. The frequency of the heart's action not changed by endermic application. After direct injection into a vein, noticeable depression (by Ludwig's kymograph), with subsequent restoration of former blood pressure.

(c) Dog. 1. Same results as with rabbit, only the frequency of respiration (or amount of dyspnoea) is increased, and salivation was observed. No marked influence on the dog's normal temperature with 5.0 grammes [=77.162 grains] quebracho. Similar temperature results were obtained in normal man.

2. Experiments with a sick (feverish) dog gave no constant lowering temperature action. Only in one case (con-

tinued fever caused by a non fetid abscess) was a reduction observed of 1.3° C., which appeared after one and one-half hours, and continued for a number of hours. (The quebracho solution appeared to check decomposition, but did not control the putrefaction of blood, yolk of egg, &c.)

In man, the exhibition of from 3 to 8 ccm. [= 48.69+minims, to 2.16 drachms] of the solution gave no marked diminution in the temperature of phthisis, of intermittent fever with phthisis, nor in the moderate fever of pleuritis. The frequency of pulse reduction was but slight. No action followed its use in intermittents. There were different results in a patient suffering from pleurisy and emphysema, fever and moderate dyspnœa. The patient "volunteered the remark that he felt easier in his chest, and actually breathed less frequently. Methodical experiments were now conducted with patients who suffered dyspnœa from various causes: Emphysema, emphysema and severe bronchitis, phthisis, chronic pulmonic processes with periodic asthmatic attacks, pleuritis, etc. The results obtained were that, in a horizontal position, within from one-half to one hour after taking the remedy, the respiratory frequency was counted, the depth of breathing observed, and the color of the face and lips carefully noted, and eventually the patient was asked how he felt."

Penzoldt made more than twenty-five such experiments, without adding numerous tests made in the Policlinic, in which the subjective assertions of the patients only could be used. The dose in these cases was from 1 to 2 teaspoonfuls of the solution twice or thrice daily—sometimes continued for days.

In simple continuous dyspnœa of phthisical patients, the reduction of respiratory frequency was either of little moment, or failed altogether, but once falling from 27 to 33 to 27 to 21 respirations.

The most brilliant results were obtained in the asthmatic attacks of a consumptive. After the use of two teaspoonfuls of quebracho solution, the respirations sank, in one and three-quarter hours, from 54 to 27, or 30. During the following night the patient slept well, which, previously, was impossible.

In exudative pleuritis, respiratory reduction was more marked, falling from 26 to 28 to 24 to 22. In asthma of emphysematous patients (3), it fell from 32 to 36 to 22 to 18. The respirations did not change much in complications of emphysema with pleurisy—26 to 30 to 24 to 20 respirations. In a severe case of complicated bronchitis, the change was marked from 25 to 30 to 23 to 20 respirations; once from 24 to 16 respirations. In the latter cases a superficial respiration was observed at times. In a similar case, without respiratory change (18 to 19 per minute), after exhibiting the remedy, it required close observation to count the respirations; and the sharp (at times distinctly heard at a distance), whistling sound became markedly weaker.

Marked cyanosis in phthisis, emphysema, etc., was either lessened or entirely relieved by quebracho. It also apparently had some influence in a case of "collosal" cyanosis, resulting from a congenital pulmonary stenosis and chronic pneumonia. The "acne nose" of an emphysematous patient, which usually had a violet-blue color, changed to a fiery-red under quebracho, and was much admired by a room-mate. Subjectively, patients without exception breathe more or less easy, and in some cases an extraordinary easy respiration follows. In a case of thrombosis of the pulmonary artery, a respiratory reduction from 36 to 28 respirations per minute, from 54 to 34 respirations, and from 46 to 39 respirations followed after the exhibition of each teaspoonful, respectively, of quebracho solution, with diminished cyanosis and greater comfort.

There was no prejudicial concomitant appearance, *no narcotic action whatever*; there was usually, first, a feeling of warmth in the head. The disposition to cough is lessened, and expectoration is expedited. Sometimes there is some perspiration—frequently slight salivation. The medicine does not taste unpleasantly, is astringent and aromatic.

Penzoldt groups the foregoing results as follows: "We possess in quebracho bark a remedy, which, without prejudicial consequences, alleviates for hours, or entirely removes different forms of asthma or difficult breathing in various diseases of the lungs and the circulatory system. Its thera-

peutical action is manifested in frequency of depth of respiration, in cyanosis, and primarily in subjective oppression."

In explanation of the action of quebracho, Dr. Penzoldt remarks, that after observations in experiments on animals and man, upon using the drug, redder coloration of the blood followed (arterialization). To prove this, the author took two samples of blood from an animal to be slaughtered, and added quebracho solution to one, and an equal quantity of distilled water to the other sample; and he found the first, after some standing, decidedly more crimson. In deficiency of oxygen (under mercurial vacuum), the red coloration was moderately produced. Upon this, Penzoldt grounds the hypothesis that, possibly, by acting directly on the blood, it supplies the power to absorb larger quantities of oxygen than usual, and that the blood flowing through the capillaries into the veins, is deeper colored than normal. However, the fact that excessive doses cause dyspnœa in animals is not explained. On the frog, aspidospermin acts similar to the extract of the bark.

In No. 52 *Berlin Klin. Wochenschr.*, December, 1879, is an essay by Dr. Berthold, of Dresden. He experimented with preparations from the firm Gehe & Cie. It should be remarked here, that, according to reports from this firm, there was no quebracho blanco bark in stock from April, 1880 (?) [this statement should doubtless be 1879], till then; hence, it appears, that only lignum quebracho was used, which leads to the conclusion that this was the wood of quebracho Colorado, of *loxopteringium*, *lorentzii* (Gresbach).

Berthold, using only his preparation in the different forms of dyspnœa, lays the chief value of his observations on the changes in respiration. In a case of convulsive asthma, the respirations sank, within three hours, from 64 to 30, after exhibiting three teaspoonfuls of the tincture of the wood of quebracho [Colorado?]. The dyspnœa was caused by pulmonary emphysema, insufficiency and stenosis of the mitral valves, fatty cardiac degeneration, and dilatation of the right ventricle. The author states that in cases of irregular pulsations, when digitalis has been used and this remedy must be discontinued, and orthopnœa persists, quebracho is a de-

sirable remedy, and the intensity of the attacks become decidedly weaker than before.

Out of six cases of phthisis, *only two were successfully treated* for difficult breathing with quebracho [wood]. In one of these cases, the respiratory frequency fell from 52 to 28, after the second hourly teaspoonful of tincture of quebracho.

There were no results obtained in the dyspnœa of croup.

In diarrhœa, the best results were obtained with the extract of quebracho.

Dr. F. Picot, of Karlsruhe, used cortex quebracho in three cases of dyspnœa—due to catarrhal pneumonia, bronchial asthma, and valvular lesions—with good results. The patients felt easier, and were well satisfied with the action of the drug. Respirations fell in frequency, and the other physical signs remained in *statu quo* in the case of catarrhal pneumonia.

Dr. Picot made experiments on himself for three successive days. Thermometric and barometric pressure were about the same—climbing a mountain to the same height each day. Before starting, his respirations were 16, pulse 64 per minute, without quebracho; on ascending the rather steep mountain, the respirations became 42 and the pulse 94, with very unpleasant sensations of short breath. On the third day he took three doses tincture of quebracho = 15.0 grammes of the powder [= 231.485 grains], half an hour before starting. On arriving at his destination his respirations were 30, and his pulse registered 80. He felt better than on the previous day, and the exalted respirations sooner became normal. Another patient breathed much easier, and could smoke tobacco in his descent, which was impossible on the day before. No quebracho was taken on the third day, and the symptoms were as on the first day. A number of experiments, with similar results, were made with two other persons. No negative action was developed; the dose was from 10 to 15 grammes [= 154.323, 231.485 grains]. According to *Weiner Medizinisch Blatter*, No. 41, 1879, the renowned Scoda was much relieved by tincture of quebracho in his long illness, and was successfully used by him in other cases.

In No. 10 *Berlin Klinischen Wochenschrift*, March, 1880, appeared a second article by Dr. Penzoldt, of Erlangen: "To review the action of the drugs of quebracho, aspidosperma, and particularly of the lignum quebracho, in cases of dyspnœa, he principally reviewed the article of Lagner in the *Breslauer Arzttliche Zeitschrift*, 1879, No. 24, according to which, quebracho preparations produced deleterious negative results in Berger's hospital ward in Breslau. The occasion of this result is not given. Penzoldt made his first experiments with the bark of aspidosperma quebracho, *i. e.*, with the bark of a package sent by Dr. Schickendauz from Pilciao (Argentine Republic) to Europe as such bark.

Herr Dingler Custos, of the Munich Botanical Gardens, describes the genuine drug as follows: He (with some almost ripe fruit) forwarded pieces of bark of aspidosperma quebracho, which were about 1 to 2 cm. [= $\frac{2}{5}$ ths— $\frac{4}{5}$ ths inch] thick. The outer half was deeply torn, and covered with a thin layer of cork. The outer bark, when free from injury, was of a brownish yellow, turning to a reddish color; in fresh sections, more or less red, with darker, yellowish-brown, irregularly marked with irregular, concentric, confluent lines—cork lamella—and dotted whitishly. The various large, whitish dots filled the entire tissue closely, and, under the microscope, appeared as thickened tissue elements. The [inner?] bark, when perfectly free from injury, was of a pale, yellowish color—large, fibrillary fibres passing irregularly in different directions, marked by angularly rising fibres. The sclerochymatic cells were plainly visible in cross sections, but not so distinct as in the cork containing parts.

Schickendauz makes the following observations on the habitat of aspidosperma quebracho: "This tree is quite common in the Province of Santiago, and in the valley in which the city of Catamarea lies. On this side of the Ambista (?), I know of but a single group of this tree, which grows at the outlet of the Quebreta del Molle, about four leagues east of Pilcino. From this section the bark is obtained. For many years the bark has been used as a febrifuge, and is said to be almost similar in action to cinchona bark."

Penzoldt's experiments with preparations of quebracho

wood, prove that the wood has an identical, but slower and less intense therapeutical effect than the bark. Its therapeutical use showed that, though no decided action was frequently visible, the remedy did excellent service. An attempt with a preparation called *extractum quebracho*, developed a feebler and slower poisonous action in the frog than the original watery solution of the alcoholic extract.

The reports on the action of *lignum quebracho* preparations depend principally on the natural, uninfluenced, spontaneous assertions of the patients, or upon the answer to questions whether the patients have noticed any changes subjectively. Again, it has benefitted emphysematous patients most; for a longer or shorter period, the drug always improves these patients. Several consumptives, also, report lessened dyspnœa. In a case of complications of emphysema, pulmonary phthisis and nephritis, the remedy failed altogether. There was no benefit in several cases of advanced phthisis. The remedy failed completely in an old lady with nephritis and diffuse dropsy; in another case of severe dropsy—cardiac muscle degeneration and albuminuria—there was, at first, some benefit; later no action; and in another case of acute nephritic-dropsical patient, it brought relief frequently. Apparently, then, the remedy, *lignum quebracho*, alleviates the dyspnœa of emphysema most, of consumptives less, and is of little value in nephritic patients with œdema.

Favorable results are also reported by Pribram (*Prague Medicinisch Wochenschrift*, 1879), Frommuller (Betz, *Memo-rabilien*, 1880, H. 1, S. 15), and Krauth (*ibid.*, 1879, H. 11, S. 510). The last-named reporter used the drug successfully in two cases of cardiac hypertrophy in the last stage—manifested by general dropsy and dyspnœa—of three cases of albuminuria scarlatinosa, one case of tuberculosis, œdema dyspnœa, and in one case of lung injury caused by stabbing, with severe exudation. In all of these cases the remedy markedly influenced the dyspnœa.

Whilst Penzoldt has collated [the results recorded in this paper from] all publications on the subject to which he has had access, and has added his own experience with *quebracho* wood, he shows that all this is not sufficient to accu-

rately determine in which cases of dyspnœa *lignum quebracho* relieves, and in which it will fail.

In a final *rèsumé*, Penzoldt draws the following conclusions: "The therapeutical action of *cortex quebracho*, which I, at first, indicated, are in force until further investigations produce different results. Further investigations are desirable, and must be carefully conducted, until a sufficient quantity of the *genuine* bark is found in commerce. Meanwhile, the use of *lignum quebracho* is advocated in practice. According to the foregoing experiments, derived from divers sources, it has a favorable action in many cases of dyspnœa. In those primary diseases, complicated with difficult respiration, dyspnœa was markedly decreased. Even in those it exerted but little influence; and in those conditions in which it failed altogether, the facts have not been definitely stated. It seems that the dyspnœa of emphysema is most influenced by *quebracho*. Favorable action is also noted in bronchitis, pulmonary phthisis, cardiac lesions (of valves and muscular tissue), the so-called spasmodic asthma, etc. The action of *quebracho* is generally evanescent. That it may be more effective, and prolong its influence by longer exhibition of the remedy, is, according to preceding observations, not impossible. But this must be definitely ascertained. There was nothing observed of a definite disturbing negative action by those experimenters who used the *genuine quebracho* wood.

Taking all *data* into consideration, the extended use of *lignum quebracho* may be recommended, with an easy conscience, to our colleagues. If administered according to previous directions, there will be no harm done, though the remedy fail. Uncertain forms [of diseases] must, of course, be excepted."

Penzoldt refers those cases of mechanical obstruction to the smallest contraction of the bronchial tubes [bronchioles] by œdema or excessive secretion, to this category in which the remedy will fail in its action.

In judging of the success attained in individual cases, all other results which, in the true sense, are able to influence the objective appearances of dyspnœa, favorably or otherwise,

must be excluded, in order that the pure action of the remedy may be viewed.

The proper dose for each case must be determined by experiment. Experiments on animals show that excessive doses of quebracho cause dyspnœa, while small doses may prove useless. Different individuals, with divers diseases, will show varied results after exhibition of the drug. A dose "which checks dyspnœa in one case, may increase it in a second, and prove useless in a third—be the dose too large or too small. It is certainly not safe to expect an increased action by larger doses of the drug, as, for example, with morphia, chloral, etc.

Penzoldt directs the drug to be prepared as follows: About 10.0 grammes [= 154.323 grains] finely pulverized wood (or bark) are macerated with 100.0 grammes [= 1543.235 grains] of absolute alcohol for some time (about eight days), in a well stopped bottle; then filter, evaporate the filtrate to dryness on the water bath; dissolve in 10 ccm. [= 5.41 + drachms] hot water, and filter. This watery solution is of a reddish-brown color—sometimes murky, when prepared from the wood, and clear and yellow when prepared from the bark. A teaspoonful of this solution = 2.0 grammes [= 30.865 grains] of the [crude] drug. Begin with a teaspoonful of the wood tincture, as a dose for adults, thrice daily. This dose may possibly be increased in certain conditions. The bark tincture has always been sufficiently large, as stated.

The prescription formula may be written as follows: *R*, Pulverized lignum^q(cort.) quebracho, 10 0 grammes [= 154.323 grains]; macerate for eight days in *vitrio brue clauso e*. Spts. vini [alcohol] rectificatum, 100.0 grammes [= 1543.325 grains]. Filter every other day, let cool and dissolve in warm water, 20.0 grammes [= 308.647 grains]. Filter. Sig. One teaspoonful three times daily.

The Operation for Vesico-Vaginal Fistula fails so often, according to Dr. Emmet, because operators twist or clamp the stitches too tight; and consequently cut out before there has been time for union.

ART. II.—**Laceration of the Cervix Uteri and Perineum.** By JOSEPH H. WARREN, M. D., Member British Medical Association; Author of Work on "Hernia," etc., Boston, Mass.

These lacerations are characterized by such prominent symptoms that it is hardly necessary to give or enter into a minute description of them to the older general practitioners. But, for the benefit of the younger members of the profession, I will give a few of the most prominent characteristics of each affection to serve as a guide to the better understanding of the subject.

First, then, we have lacerations of the cervix as a general result of the impregnated womb delivering itself of its contents—usually at full term, but occasionally by the escape of the foetus at any time previous—say at about the fourth or fifth month of foetal life; or it may be caused by the use of forceps at the time of delivery, or by sharp instruments in the violent and ignorant hands of the abortionist. They may occur anteriorly or posteriorly, or more usually laterally, and more frequently upon the left than upon the right side of the os.

Some of the most prominent symptoms are pain in the back and loins; inability to stand any length of time; general depression, weakness, nervous fatigue and exhaustion—often hysterical emotions; excessive leucorrhœa of a yellowish or green appearance, thick and viscid in nature; menstruation often profuse and irregular; micturition frequent; appetite lost or variable. Added to these are wakefulness, general irritableness and peevishness; more or less constipation, often followed by looseness of the bowels; a dark, rough and tawny skin, somewhat sallow or waxy, oftentimes; a bloating of the stomach and bowels from debility, nausea and sickness at the stomach. There may also be turns of fever, with great thirst; or it may lead to the development of cellulitis, and even death.

The extent of these lacerations makes little difference in the symptoms, or, at any rate, much less than we might, perhaps, suppose. They often extend through the crown of the os; but whether they extend to the junction of the cervix

and vagina or not, they give about the same constitutional symptoms. If we look at the anatomy of the os and neck, we shall readily see the reason why this is so, because of the free distribution of vessels and nerves in this particular part of the anatomical structure of the uterus. You will often see patients with this affection who will, by tonics or other means, amend up to a fair and tolerable state of health for a short time, and then relapse again, as soon as there be any relaxation of the tonic medication.

Now, what we are to do for this class of patients is worthy of our most serious consideration. In the first place, we must bear in mind that if the patient is young, or under 45, she is liable to become pregnant and bear children; and that, if we have succeeded in uniting the lacerated cervix by a firm cicatrix, this part of the womb will be unyielding and undilatable to a very great extent from the cementing together of the uterine tissues for some distance on both sides of the firm union in the heretofore lacerated parts. In any future delivery, the woman will most likely receive a rupture of the other side, or some other portion of the cervix than where we had already operated. So it behooves us to take well into consideration her future, as well as her present, in our efforts to relieve her sufferings.

But if her present sufferings are urgent and serious to her well-being, or even life, we will think over the operations for one that will best accomplish the desired objects in granting her a life of comparative ease and comfort. If the present necessities are paramount to all future expectations of life, with the cares of a wife, together with the future contingencies and liability of bearing offspring, we may, if we decide that an operation is best, proceed according to one of the following plans:

The first plan, not requiring the use of the knife, has some advantages, as there is no loss of uterine substance. If the considerate reader will bear with me, I will relate how I accidentally discovered it—an operation I have used for now more than twenty years.

Dr. Brown, on the opposite side of the town where I then lived, asked me to see with him a case of a large ulcer upon

a leg. This I agreed to do, provided he would visit with me a case upon the way, which he readily consented to do. Before we left my office, we had decided it was best to apply nitric acid to the ulcer. Dr. Brown had been thinking the tincture of cantharides would be good; so we compromised by adding both together, and intended to apply a few drops of this, diluted with water, and dress with powdered calomel. My patient had had, for more than twenty years, a lacerated cervix with great induration, to which we thought it best to apply tincture of iodine. As I held the instruments in position, I requested Dr. Brown to pass it to me; but he passed the acid, by mistake, instead of the iodine, as he was probably thinking more of his ulcerated leg than he was of my case of ulcerated uterus. I applied what I supposed was the iodine to what I then thought was an ulcerated cervix. The next morning her husband requested me to call, as his wife had had some hæmorrhage, for which I plugged the vagina with a dry sponge in a linen handkerchief, allowing the ends of it to protrude and drop into a basin of water. Thus, by capillary attraction, the sponge was moistened and swelled. She was to remove it the following day, and send for me if the hæmorrhage continued. Hearing nothing further from her, I presumed she was doing well; but upon visiting her some ten days afterwards, I found she had allowed the sponge to remain, because it made her feel so much better. Upon removing the odoriferous mass, I expected to find mortification; but, on the contrary, I found the ulcerating surface had entirely healed—even to the complete closing of the os uteri.

This occlusion of the os gave me some uncasiness, and I consulted Prof. E. R. Peasley. Upon hearing all the circumstances, he smilingly said he did not know what a woman of 65 required an os for; he informed me I had succeeded in uniting a severe case of lacerated cervix, and advised me to do likewise with every such case I might meet. Since then I have, for nearly twenty-five years, succeeded in uniting many a case by the application of the fuming nitric acid, after denuding the surfaces with the acid, coapting them in position, packing iodinated cotton around the cervix, and inserting a stem pessary or a portion of a bougie.

In other cases, where the laceration has been very superficial, I have succeeded in denuding the surfaces with hot copper, and applying the same dressing as above. But as, unless we are pretty expert in our manipulations about the uterus, this operation is not always a perfect success, we shall, in many cases, have recourse to the second and most usual plan, which consists in paring both lips with long shears, bringing them together and securing them with from one to three silver sutures.

In the paring of these lips, it is very essential that we do not take off too deeply the substance upon the outer side of the cervix; we should simply cut enough to freshen thoroughly the lips. After bringing them together, and seeing that they perfectly coapt, we proceed to insert our sutures by means of a hollow needle, which allows the silver wire to pass through its centre—the wire being withdrawn into the needle while passing through the tissues. This needle is held in a long shaft, which has a wheel with milled edge, by depressing which upon the wire and revolving, we can cause the wire to advance along through the needle. This instrument is provided with three needles, which can be adjusted—one straight, one at a left angle, and one at a right angle. This instrument is extremely convenient for lacerated cervix, lacerated perineum, or for cleft palate, and was made for me several years ago by Chariere of Paris.

After the sutures have been applied, we should wash out the vagina at least twice a day with carbolized water, with chill just removed. During the operation, I have never found it necessary to apply anything but ice to arrest hæmorrhage. I never use the persulphate of iron, for fear that it may result in thrombosis, or may block up the secretions so that they may be absorbed and cause septicæmia. The patient should be kept in bed, free from all excitement, and opiates should be given to secure rest. I should add that previous to the operation a dose of castor oil, or some other mild laxative, should be administered; but the patient should not be allowed to have a movement of the bowels for some eight or ten days after the operation, if it be possible to prevent it. The diet may be of a light, nutritious character.

Our sutures may remain until the parts have united. Should a puckering take place at the junction of the uterine neck and vagina, from excessive amount of tissue, leaving some little portion high up unhealed, we can readily relieve it by denuding the tissue with acid, and bringing it together with a suture. If we do not observe such care, we may have a fistulous opening remain ever after, which might, at the time of operation, have been easily remedied. This puckering is caused oftentimes by the parts swelling between the sutures during the primary process of healing; or, it may be, we did not completely denude the surface high enough when we pared the lacerated lip. I know many recommend the removal of the sutures earlier than I have recommended; but I am convinced that much harm is done by too early a removal, as the parts may separate, and the operation have to be partially or wholly repeated. It should be borne in mind that reunion of the parts takes place by granulation.

It has been mentioned by some one that the rubber band can be used in place of the sutures; but I can conceive of no more dangerous an operation than this procedure would be, as the band, to hold the lips sufficiently together for union to take place, must encircle the neck of the uterus with sufficient force to obstruct circulation in the parts; and particularly, as we are liable to have more or less swelling follow the operation, there would be danger of mortification or amputation of the surgical neck of the uterus. We all, who have much to do with uterine surgery, know very well that the uterus is often very tolerant to severe handling with surgical instruments and caustic applications upon the inner surface. But it will not tolerate the encircling of its neck with a band of rubber or carbolized ligaments, without the consequence of sloughing and danger to life.

This is sometimes shown even in the application of a pessary to overcome flexions, since, even in this way, mortification and sloughing have been known to occur. We cannot, therefore, consider anything which will compress the uterine neck as good uterine surgery; and no one but the most rash and inconsiderate, would, for a moment, adopt such a method—particularly after the operation for lacerated cervix.

So, when it may be recommended by some to do this operation at one's office, and send the patient a longer or shorter distance to her home with a rubber band in place of sutures, we should be extremely delicate about receiving such rash advice. Should one be disposed to try bands, I can conceive that there would be safety only by placing a goose-quill or portion of bougie on either side of the neck, and passing the band over them; but this limited allowance of circulation would be extremely hazardous, and I would not recommend it.

I do not believe, as do some authors, that every woman at her confinement is the subject of more or less laceration of the cervix. Some contend that such laceration does take place, leaving, however, hardly any traces of the accident in many cases; if any trace be left, it shows itself in slight longitudinal fissures, extending only through the mucous membrane, and resulting in ulceration. That such is the case, I feel confident occurs in a few rare cases. The English surgeons of to-day hardly acknowledge the occurrence of this laceration which is so common among our American women. Even as late as last summer, in the meeting of the British Medical Association, Dr. Pallen, of New York, read a very fine paper on this affection, which caused no little discussion among the English gynæcologists. Our distinguished countryman, Dr. Marion Sims, made some very satisfactory remarks sustaining the paper of my distinguished friend, Dr. Pallen. Even the best English authors, like Duncan, Tilt, West, and many others we might mention, do not even refer to this in any of their works on diseases of females. Dr. Barnes simply refers to it, and recognizes it only in the last American edition of his work, but devotes little space to it.

What is the cause of this? Is it that the English gentlemen, in their medical and surgical treatment of diseases, do not recognize this very common affection; or that they do classify it as an indurated ulceration, as I did in the first years of my professional life, when our means of exploring this organ and diagnosing its diseases were not so good as now? or is it that the women in England are not liable to this accident as are the women of America? May it not be

that we have too much meddlesome midwifery? This I am not willing at present to admit; for I believe that we are the peers of any English gentlemen in the practice of medicine or surgery. It may appear presumptuous in my saying this, but I, nevertheless, believe it is true that there are a larger number practising our profession in America to-day who are better educated than is the average of the English practitioner. Of course we all acknowledge that there are very many distinguished and highly educated gentlemen of the profession in England; but I think we can match with them a larger number that are their peers in every department except pathology. In this I know that we have no one the equal of Prof. Paget, and I doubt if any country has.

I feel that I am enabled to judge somewhat of this from my peculiar advantages as Medical Director in our late War between the States, and President of a Re-Examining Board whose duties were to examine those surgeons of the United States Army, who had received appointments, but who were thought not fully competent for professional service in the army. It was surprising how very few of the volunteer surgeons who came before this board were found incompetent. As this was in the opening scenes of the war, I had an opportunity seldom equalled to know what I affirm, coming, as these surgeons did, by the thousands from every city, town and hamlet. I would ask, where in any other country, would one find such a vast number of well qualified medical gentlemen so self-sacrificing and devoted to the relief of fellowmen without regard to nationality, color line—red, black or white—or the side upon which they were fighting? In proof of this, I would only point to the Medical and Surgical History of our war, and the Medical and Surgical Museum at Washington, as evidence of faithful work, and as one of the noblest monuments ever erected to the science of surgery. Can any nation give a better showing of ability and devotion to our profession? What is said of the North can also be said of the South. Where will you find wounds and diseases better treated with the limited means at one's command than we saw in the Southern medical service? What a Christian spirit was displayed by our profession on both sides

of the line! It often occurred that surgeons of both armies were mingled together during and after battle, and upon the same field, devoting themselves to the relief of the suffering, and to the saving of life, without regard to which side the sufferer belonged—illustrating fully our motto, “To save life and not to destroy it.” May the time come when this nation shall more fully realize and appreciate what our noble profession did for the good and glory of the whole country! If our services were more highly appreciated by all nations, we should not, when appearing before any authoritative or legislative body to ask for judicious laws and restrictions for the success of our profession, be turned away with such meagre concessions.

Laceration cannot, then, be laid to bad or officious midwifery, since it takes place often without any medical attendant. I have, at the present time, one or two such cases under treatment, who, at confinement, had no assistance except from friends who were with them. I find, too, that it occurs in a greater number of cases of delivery where instruments were never used than in cases where they had been used. I might detail cases enough to fill the columns of a journal, but I cannot think they would add anything to the value of this paper.

The operation is simple, and any practitioner, with any surgical experience, can very easily and readily perform it. During all these operations, it is always supposed that the patient is under ether, and it will be found that the tissues of the uterus will resist the needle very much, although they are easily cut with the knife.

Lacerations of the perineum vary in extent and kind. They may be slight rents about the anterior fourchette, and are more liable to occur in the first labor. Where the rent is slight, it does not involve the sphincter ani. In more severe cases, the perineal body is divided so severely that the sphincter control of the anus is lost. A still more severe rupture occurs where perforation is made between the fourchette and anus, resulting in a fistulous opening.

The permanent symptoms are a separation and gaping of the perineum, varying according to the extent of the rupture.

In a long standing case, erosion of the edges of the wound takes place, and a rolling outward of the mucous membrane of the vagina with often a prolapsus of that organ, and sometimes a prolapse of the bladder and uterus. What the keystone is to an arch, is the perineum to the female pelvic organs; thus, we can see that laceration of this part will result in danger to the female economy.

In the simpler forms of laceration, nothing is necessary, except to bind the hips together, and to keep the parts as free from the secretions of the vagina as possible; it will then be found to heal without further trouble in the majority of cases. But in severer forms, greater efforts will have to be made to effect a cure.

The operation for a complete rupture is first to place our patient in the position for lithotomy. The labia are to be separated either by an assistant or by a retractor. The edges are to be pared with a keen-edged bistoury, lithotomy knife or scissors; the paring should not be extended beyond the natural extent of the perineum. We pare outward, raising up the mucous membrane on either side. The hæmorrhage can be arrested by torsions of the arteries or ice-water sponging. We should now take the hollow needle I have already described, and make from one to three double silver sutures at such distances as shall best coapt the lacerated parts. These sutures can have a flat bead or button on either side to hold them, or Bigelow's manner of fastening with a bullet, or they can be drawn over a goose-quill or a portion of a wax bougie. Some have inserted pins for a twisted suture, as in hare-lip. The parts being secured, we should place a little carbolized cotton just above the fourchette to form a sort of dam to keep out the secretions of the vagina. This is particularly desirable at our first dressing in order that the healing may be as much as possible by first intention. These sutures can be removed one after another in the course of eight or ten days, as the wound progresses in its healing process.

It is by no means a very difficult surgical operation. The most that it requires is delicate manipulation. The freshening of either side can be done with acid instead of the knife, as in

lacerated cervix; but the operation will then be longer and more tedious, as only a portion of the surface can be denuded at any one time; hence, it is rather impracticable. I have often thought that if every writer and teacher in midwifery would insist upon the importance of making transverse cuts in the perineum when it is put very greatly upon the stretch, and likely to rupture during labor, many severe accidents would be averted from our patient, as the cut wounds would readily coapt and heal of themselves.

[TO BE CONTINUED.]

ART. III.—**Treatment of Anthrax.** By C. C. DUFFY, M. D., Norfolk, Virginia.

What Dr. Stephen Smith (in the *Chicago Medical Review*, November, 1880) has to say about a "New Treatment of Abscesses," reminds me very forcibly of my father's (Dr. Walter Duffy, of North Carolina) treatment of anthrax, or carbuncle, many years ago.

On one occasion he suffered very great pain from a carbuncle on the dorsum of his right fore-arm, and so severe was it that it confined him to his bed, and of course incapacitated him from attending to his professional duties. The proverb that "necessity is the mother of invention" (as the use of his right hand was absolutely necessary), held good in this instance. He opened the carbuncle well by making a deep crucial incision, and cauterizing the surfaces thoroughly with nitrate of silver; then, with a good many pieces of lint, cut round, and large enough to cover all of the inflamed surface, and with a hole cut through the centre of all of them, about three-quarters of an inch in diameter, and after thoroughly saturating them with water (carbolic acid was not known then), he placed them over the carbuncle to the thickness of three-quarters of an inch—the hole in the lint corresponding with the crucial incision—and bandaged the whole arm tightly, and let it remain for twenty-four hours. The result was a perfect success; the dressing acted as a compress on all sides, forcing the collection of matter

into the centre of the cut and the hole in the lint, forcing the formation of a core. When the dressing was removed, the centre was entirely filled with matter, at the expense of the surrounding tissue, the inflammation had almost entirely subsided, and the pain was nearly gone. The dressing was applied as before, and next day a simple water dressing was substituted.

The effect of the treatment was so beneficial that he was enabled to resume his regular duties within three days from the date of the first application of the compress.

The treatment of anthrax is often so tedious, and the results to be gained in the manner described above are so satisfactory, that I was induced to report the same for the benefit of the profession.

ART. IV.—*Dioscoria Villosa*—Wild Yam or Colic Root. By J. J. M. GOSS, A. M., M. D., Marietta, Ga., Author of a work on *Materia Medica*, etc.

This singular little trailer was named for the celebrated *Diascorides*. It is a delicate, trailing vine, running upon bushes, fences, and along the ground. It is plentiful in the Southern States, but rather scarce in the Northern States. It flowers in July and August, and seeds in the fall. The seeds are in a small three-square capsule. The root is the part used, which has a sweetish-bitter taste, and contains a milk-like juice, and a bitter, acrid principle, called *diascoria*, upon which its medical virtues depend. This plant has not received its merited attention by the profession.

Physiological Effects.—In large doses, this plant produces the following toxical effects, viz.: Pains of a neuralgic character in the bowels and over most of the body, which, though they are continuous, yet are somewhat remittent in severity. These pains are most commonly felt in the abdomen, and are manifested as a “twisting” in the small intestines, but the same sensation extends to the umbilicus. With these pains, or colic, there frequently are watery or jelly-like, yellowish or bilious stools, burning, tenesmus, and sometimes prolapse of the rectum, offensive flatus, and often nausea and vomiting. It causes, also, amorous dreams, emissions, with

erections, etc. It evidently has a direct affinity for the spinal cord, and produces its effects through its profound influence upon that part of the nervous system. It acts especially upon the umbilical and celiac plexuses of nerves, and upon the muscular tissues, over which these nerves are ramified; also upon the liver, and upon other portions of the sentient nervous system.

The *indications for its use* are: Muscular pains, which, though constant, are aggravated at regular intervals. It is a special remedy for colic, starting at the umbilicus and radiating over the abdomen. It relieves neuralgic or myalgic pains of other parts of the body, which are aggravated by paroxysms. It may be prescribed with confidence in facial neuralgia, cardialgia, spasmodic and flatulent colic; painful tenesmus of the rectum, bladder, or uterus, spasm of the gall-ducts, sciatic neuralgia, and other like spasmodic pains. It is a remedy for pains of a spasmodic character in the stomach—resembling here the action of the oxide or sub-nitrate of bismuth. When attacks of cholera morbus are attended with twisting pains in the abdomen, diascoria will be found to give quick relief to this element of the disease.

It has also decided influence over the male organs of generation. Where there are frequent and strong erections, amorous dreams, with emissions, this remedy may be given with confidence of success. It is also a valuable remedy in spermatorrhœa.

In females, it is a valuable remedy for dysmenorrhœa, uterine colic, after-pains, and the cramp-like pains of pregnancy. It is also a good remedy for intercostal neuralgia and angina pectoris. It relieves the pain of neuralgic rheumatism.

The following excerpt from the author's work on *Materia Medica* will illustrate the action of this remedy fully: Under the head of diascorin, I state that diascorin is the anti-spasmodic and cholagogue principle of the diascoria villosa, or wild yam. It seems to exert an æsthenetic and anti-spasmodic effect upon the stomach and bowels, and, at the same time, it corrects many morbid conditions of the biliary secretion. In hyperæsthesia of the stomach and bowels, the dias-

corin is a very positive remedy. In bilious colic, combined with euonymin and podophyllin, diascoria gives immediate relief. In bilious colic, one or two grains will give relief. In neuralgia, it may be combined with quinine and gelsemium, in due doses. In dysentery, combined with gelsemium, it will relieve the tenesmus and tormina. In dysmenorrhœa, combined with scutellaria and viburnin, it gives prompt relief. This remedy, in medicinal doses, produces its anti-spasmodic and soothing effects upon the system without any disturbance to the general system. The usual *dose* of the diascorin is from one to two grains. The dose of the tincture is from one to two drachms, which may be repeated in one or two hours, until relief is obtained.

Clinical Reports.

Successful Use of Nitrite of Amyl in a Case of Whooping-Cough. By R. C. BOWLES, M. D., Chapel Hill, Va.

An epidemic of whooping-cough is prevailing in this vicinity, which has been amenable to the usual treatment. But I have just the past week (January 12th, 1881) encountered a case in a female infant of four months, in which the paroxysmal stage was unusually severe, threatening death by asphyxia at each attack. The lower jaw would be clinched as in tetanus, violent but ineffectual efforts at respiration, the face black and turgid, the brain flooded with carbonized blood, the sphincters relaxed, involuntary discharges, and the child to all appearances lifeless. But a prompt resort to the usual means of artificial respiration would revive it, when it would continue tolerably well until the next paroxysm, to follow the same course. This continued for several days, and having exhausted the list of anti-spasmodics without relief, I called in consultation Dr. G. L. Anderson, who was unable to make any further suggestion. Having been kept up for six nights in succession, with the thermometer below zero, the snow two feet deep, expecting every attack to be fatal, I commenced the use of the inhalation of the nitrite of amyl, with perfect relief of all the symptoms. This is the eighth day I have been using the nitrite, with good doses of cinchona alkaloid, and the child is convalescent. Without the nitrite, I am satisfied it would have died.

Dr. George Baylor, of New York city, called the attention of the profession to this remedy in a communication to the *Virginia Medical Monthly* some time since. It deserves to be generally known.

Alopæcia from Nervous Shock. By THOMAS H. KINNEY, M. D.,
Hanover county, Va.

In the January number of your journal there is a case of Frédet's reported of complete alopæcia, following fright. I wish to give you a short account of one, similar in some respects, with the hope it may be of interest to your readers.

G. O. K., Hanover county, Va., aged thirty-five, was driving along the road in his cart one day last summer (25th of August), when the lightning struck a tree very near him. His mule was knocked down, and he himself was rendered insensible. He thinks he was unconscious twenty or thirty minutes. With the exception of a dazed feeling about the head, which lasted for twenty-four hours, his health was apparently perfect, and has remained so up to this time.

Six or eight days after the shock, the hair on the scalp, face, axillæ, genitals, etc., began to come out, and in a few days he was as hairless and smooth-skinned as an onion.

The question naturally arises, Was it like Frédet's case, the result of fright caused by the sudden and loud report so near him? or was it the effect of electricity?

Rupture of the Heart. By W. H. SHEPHERD, M. D., Norfolk, Va.

D. S., male, aged twenty-six years, applied for treatment of bronchial catarrh, about the 1st of February, 1881. On the 6th of February, so much improvement had occurred that the case was dismissed from observation. On the night of the 10th of February, whilst the man was lying upon his bed, talking to several occupants of the same room, he was observed to suddenly make a few labored and noisy respirations, and then, without speaking, died—his illness having been of not more than three minutes' duration.

In neither of the two examinations which had been made between the 1st and the 6th of February had any evidence of organic changes in the heart been discovered; and whilst the character of the demise was such as to point to some

cardiac lesion, I refused to fill a "death certificate" until I was allowed to make a *post-mortem* examination of the chest.

Upon incising the greatly-distended pericardium, a mass of coagulated blood, inclosing the heart, was discovered. The blood had escaped from the heart through a rent or rupture of the left ventricle, situated near the origin of the aorta. The tissues of the heart were found to be softened, and the rent, one and a quarter inches in length, was located in the central portion of a spot, presenting the appearance of ulcerative process.

Correspondence.

"Unprofessional Advertising"—Retraction of Personal Allusions.

Mr. Editor,—After reading your comments upon my communication in your last number, I have concluded that I was rather hasty in my strictures on the particular cases mentioned therein. Not being disposed to injure any one with malice aforethought, I take this, the first, opportunity to retract anything which may have referred to any individual case.

I had, strangely enough, overlooked the propensity of some reporters for describing the details of matters of which they are thoroughly ignorant.

A RETIRED MEDICUS, ETC.

Richmond, March 2d, 1881.

[We are usually careful to exclude from our columns matter containing offensive personal allusions which cannot be substantiated. Medical journals are not the media through which such personalities should find their way to the public. Hence, in reference to the former communication of "*A Retired Medicus*," we blame ourselves for publishing it in the shape in which it appeared. Our attention to the *full* implication of the letter as to the professional character of the gentlemen specially referred to was first attracted by a note from the "Professor in our Medical College" alluded to in the letter of "*A Retired Medicus*," requesting the name of the writer. Before this could be furnished, and before we

had an opportunity of communicating with the writer, the above voluntary retraction, as to personalities involved in that letter, was received by mail, which we take pleasure in publishing. In our too hasty preparation of the letter for the press, we had thought the editorial comments sufficiently exonerated either of the two gentlemen from the implications of the letter; but as we view the matter more at leisure, this voluntary retraction of "A Retired Medicus" seems due to both of the gentlemen, and we take pleasure in giving it the same publicity that the former letter had.—Ed.]

The Ontario Medical Act—Reply to Dr. Carroll's Letter.

Mr. Editor,—In the December number of your journal for 1880 will be found a letter from Dr. Philip Carroll, of Simcoe, Ontario, on the *Ontario Medical Act*, which demands a passing notice. In the course of his remarks, Dr. Carroll says he has given a general outline of the law of the Ontario Medical act as accurately and as explicitly as its obtuseness will admit, and in the same sentence admits that he has never read a copy of the by-laws. If it is not apparent to Dr. Carroll's comprehension, I would suggest that before he attempts to enlighten the medical profession of the United States, he should peruse carefully the Ontario Medical Act, and I think he will not then find any just ground for complaint. A copy of this act can be procured upon application to the Registrar at Toronto, Canada, or from any member of the Council.

In another part of the Doctor's letter he states that candidates for admission into the so-called reputable medical institutions of the United States must be classical scholars, or pass an examination equivalent to that required of students before entering any of our Canadian schools. To prove the inaccuracy of this statement, I will refer him to the published announcement of any of the reputable schools of the United States. Take, for example, that of the University of Michigan, the Buffalo Medical College, or the Bellevue Hospital Medical College of New York city.

The existence of this Canadian law, says the writer, is comparatively unknown to many of the profession in the

United States, and he therefore considers it his duty to inform them, in order that they may give it such consideration as it may merit. I am really sorry for the profession of that country if they have to look for enlightenment from such an untrustworthy source.

Again, the Doctor makes bold to assert that there is no law in the United States prohibiting any one from practicing medicine, no matter where he hails from, or the source of his diploma. Here, again, he shows an entire ignorance of the subject he attempts to deal with. As a matter of fact, there is a protective license law in many of the States of the Union.

The Doctor asks that some member of the "College of Physicians and Surgeons" of Ontario will rise and explain if he has not given a correct interpretation of the law; and in compliance with his request, I have referred very briefly to a few of the inaccuracies contained in his communication.

Yours, very respectfully,

C. SINCLAIR, M. D.

Aylener, Ontario, Canada.

[We have not seen a copy of the Ontario Medical Act, nor of the by-laws; hence, we cannot take part in the discussion. There is, however, a common impression in many sections of the United States that there does exist a law prohibiting physicians and surgeons of the United States, as of other foreign countries, from practicing in Canada, and rumors have been afloat to the effect that some well-recognized, competent practitioners of the United States, who have gone over the lines, simply to answer the summons of some patient, have been annoyed by arrests for violating some special prohibitory law of Canada, which does not exist in the United States against regular practitioners in Canada who might be summoned, even hastily, to attend a friend in "the States." If there is no foundation for the rumors of the character above alluded to, we would be glad to know the fact, in order that we may correct an impression which is current throughout the United States.—EDITOR.]

Pine-Bark Pulp for Poison-Oak Eruption.

Mr. Editor,—The November number (1880) of your journal contains a very interesting and practical article in regard

to the poison-oak vine, written by Dr. A. W. Wiseman, of Jerusalem, N. C. He describes the habits of the vine so prettily and so truly to nature, that we have almost concluded that he had in his mind's eye the peach tree which stands along the lane on the north side of the fence and right in our pass-way, with a limb pulled down by the cows as they come in from pasture. It is not an early peach; the softest and ripest fall among the blades of blue-grass and the poison-oak vine, as it runs along on the ground on its way to a half-decayed pine stump, which it so ornaments and beautifies as to make it a real delight to the eye, and we wish often that it could be removed to some more conspicuous place.

The laborers in early morning, while the dew is on, pass along by the peach tree and make an early breakfast from those which have fallen on the ground among the poison vine, and thus run the risk of having the eruption which the poison-oak produces.

Near by stands a flourishing pine tree, around which this vine winds and clings so tenaciously that it is with difficulty that it can be separated from the bark of the tree. Just under the bark of this pine is a pulpy material, which, if scraped off and applied to the eruption, is said to be an unfailing remedy for the eruption, and it will also prevent its recurrence. This domestic remedy is sometimes more "handy" than even bluestone, which Dr. Wiseman uses in his cases.

Very truly,

WM. S. STOKLEY, M. D.

Bay View, Northampton Co., Va., Feb. 4th, 1881.

Incompatibility of Bromide of Potassium and Calomel.

Mr. Editor,—In looking over a fragment of an old number of the *Virginia Medical Monthly*, recently, I was a little surprised to find, under the head of "Analyses, Selections, etc.," the paragraph I enclose, headed "Bromide of Potassium as a Prophylactic to Mercurial Ptyalism, by M. E. Dozier, M. D., Attala, Ala.," which says:

"Experience with the bromide of potassium has induced me to abandon the chlorate almost entirely, as the bromide

answers the purpose more satisfactorily. The latter not only relieves the irritating effects upon the mucous surfaces, but, in addition, induces soothing and quieting effects, which certainly are much to be desired.—*Jour. Mat. Med.*, March, 1874."

If I am not mistaken, Dr. William H. Taylor, of Richmond, Va., in his report on "Advances in Chemistry, etc.," read before the Medical Society of Virginia when that body convened at Charlottesville, Va., in 1876 (*Trans. Med. Soc. Va.*, 1876, page 37); quoted some authority to the effect that bromide of potassium and the mercurial preparations—or calomel (?)—are incompatible. As my memory may be at fault, I write for information.

Very respectfully,

JACOB MICHAUX, M. D.

Michaux's Ferry Depot, Va., R. & A. R. R., Jan. 31, 1881.

[Our friend has clipped a sentence from our April number, 1874, page 40; and his other reference is to Dr. Prof. Taylor's "Report on Advances in Pharmacy," in the *Transactions* of the Medical Society of Virginia, 1876 (published with the January number, 1877, of the *Virginia Medical Monthly*), page 37 of the *Transactions*, which says:

"Mr. Norman A. Kuhn has studied the action of calomel with the bromides of potassium, sodium, ammonium and zinc, and finds that a portion of the calomel is converted into a soluble mercurial salt—a considerable portion of the calomel, under some circumstances, being thus changed. This new formed salt is poisonous, a kitten having been killed by some of it in the course of an hour and a half."

We know of no one who has prescribed bromide of potassium instead of the chlorate of potash for mercurialization. And while we know nothing about Dr. Dozier's or other recent experience on this subject, knowing, as we do, the ability of Prof. Taylor, who now ranks among the most prominent of American chemists, if he still says there is danger in prescribing bromide of potassium with calomel, or for mercurial poisoning, we will prescribe no more potassium bromide for any patient who has recently taken a mercurial. Prof. Taylor's "*dixit*" on questions of chemistry is sufficient authority for us. He knows what he talks about. There is not a doctor in this whole section of country who knows Dr. Taylor that will not "tie to him" on a chemical question. Dr. Taylor has simply *quoted* Mr. Kuhn as saying

that the new-formed salt of mercury and potassium bromide "is poisonous, a kitten having been killed by some of it in the course of an hour and a half." We profess to know but little about such chemical questions. We, therefore, leave a solution to better authority.—EDITOR.]

Original Translations.

From the French. By RICHARD H. LEMMON, M. D., Charlottesville, Va.

Concerning Cerebral Zones whose Irritation gives Rise to Hysterical Seizures.—A summary of a lecture by M. Charcot, of the Salpêtrière, is given by P. Richer, in *Le Progrès Médical*, December 18th, 1880. It is a long time since M. Charcot insisted, in his *Leçons sur les Maladies du Système Nerveux*, upon the frequent existence, in those affected with serious hysteria, or with epileptic hysteria, of a special iliac pain which he attributes to an excessive sensibility of the ovary, and which he designates by the name of ovarian hyperæsthesia. Without subscribing to the ancient theories which ascribe to the pelvic organs the exclusive seat of the malady, M. Charcot, agreeing in this with Schutzenberger, Piorry, and Négrier, combats the opinion of Briquet, who can see nothing in the iliac pains of hysterical patients but a simple neuralgia of the abdominal muscles; and he attributes to the ovarian pains an important rôle in the symptomatology of one of the forms of hysteria. From this epoch, M. Charcot has brought to notice the influence of compression of the ovarian region on the attacks, from the double point of view of the arrest or the development of the convulsions. He has shown how this compression on the ovary can determine the production of the "aura hysterica," and how, also, a more energetic compression was capable of stopping the attack.

In his last clinical conferences, 1879, M. Charcot draws attention to a new point in the treatment of the "grand hysteria," which applies to what we are about to say. New researches on the different means of arresting the attacks go to fully confirm the ideas already acquired on this subject, and at the same time complete them, in showing that there often exists on the surface of the body of hystero epileptics *defined zones of hyperæsthesia*, the exciting of which can produce effects analogous to those arising from the compression of the ovarian region. Without doubt, the existence of points

of hyperæsthesia in hysterical patients has been known for a long time; but the peculiarities connected with them, and what they mean, are much less known. The similarity between experiments here and those of M. Brown-Séquard on the *epilepsy generating zone* of guinea-pigs is striking; also, the hyperæsthetic points in question merit the name of *hysteria-generating zones*. The existence of hysteria generating zones in those afflicted with serious hysteria is not rare, but it is a phenomenon which demands spécial research, and it is easy to believe that their presence might readily be unperceived if the physician's attention be not particularly called to the fact. Willing, Turck, and others have stated that a pressure on some of the spinal processes can provoke hysteric seizures. In his thesis on "Magnetic Sleep in Hysteria (Strasbourg, 1868), Baillif reports that with one patient he produced an attack by means of light friction below the xiphoid appendix, and that in another attack, by the same friction, he produced a return to consciousness. "In certain hysteric patients," he adds, "one finds numerous points sensitive enough, with sufficient rubbing, to become the points of departure of reflex pains which may be potential in originating seizures." Several hystero-epileptics under the care of M. Charcot, in the Salpêtrière, possess one or more hysteria-producing zones, apart from the ovarian point, which exists in all the cases of which we speak.

[Here follow notes of nine or ten cases of patients possessing hystero-epilepsy generating zones in one or more of the following cases: (1) In the supra-mammary region, (2) mammary, (3) infra-mammary, (4) axillary, (5) costal, (6) iliac, (7) ovarian; posteriorly, in the interscapular, opposite the tenth dorsal vertebra; and laterally, slightly below and to the left of the latter.—TRANSLATOR.]

It follows, from an account of the preceding cases, that the hysteria-producing zones occupy a variable position; but if they vary in different cases, they are always fixed in the same person. These zones occupy the trunk exclusively; they are more frequent in front than behind. In front, they are found in the lateral parts, and are usually double and symmetrical; behind, they are usually alone and median. Finally, they are oftener found at the left than the right; the unilateral zones noticed are always on the left.

The zones are not equally excitable at all times, but are more excitable when a convulsive attack is threatening. Immediately after an attack they decrease or entirely disappear.

Observation has shown in general that the friction which arrests the convulsion should be stronger than that which determines it. A light rubbing succeeds in the first case; in the second, a pressure is necessary. When the patient possesses several of these zones, the attack occasioned by the excitement of one can be arrested by the excitement of another. The analogy existing between the behavior of the ovarian point and the hysteria-producing zones, under excitation, holds good except in degree—it being true that the excitement of the former produces a more powerful effect.

Hypertrophy of the Tongue.—M. Variot, before the Société Anatomique, submitted the results given him from a microscopic examination of a fragment of tongue from a child, affected with congenital hypertrophy of that organ, aged three years. MM. Damaschino and Cadiat gave him their aid and counsel in this delicate work. The child was operated on in the Charity Clinic by Prof. Gosselin. An elastic ligature was placed around as much of the organ as had grown out of place, after which a small part of the anterior portion of the isolated part was removed. The necessary incisions were accompanied by a little bleeding, which was arrested by the thermo-cautery. Eight days afterwards the whole of the distal portion, which had been isolated by the ligature, came away without flow of blood, and finally (three weeks after the operation), after several suffocative swellings of the tongue, the patient returned to his home much improved. The fragment excised by Prof. Gosselin was almost immediately placed in absolute alcohol. The next day, I made sections of it—some perpendicular to, and others parallel with, the mucous membrane. In a section perpendicular to the mucous membrane, stained with purpurine and examined under a power of thirty diameters, there was truly proved a considerable hypertrophy of the papillæ. Beneath the papillæ was demonstrated a honey-combed tissue, formed by rods, enclosing spaces, most of which appeared empty. More deeply, the tissue appeared to be rather of a cellular character—towards the limits of the section; moreover, intermingled with the fibrous network, were fasciculi of muscular tissue.

Under an amplification of 150 diameters, the interpapillary epithelium presented these different alterations. In some places, it showed spaces where the cells present changes similar to those one sees in the variolous pustule. The papillæ are, for the most part, constricted about the centre and base. Of the *intra*-papillary spaces, some of them are empty,

but they principally contain granular matter, together with leucocytes, irregularly intermingled. In the sub-mucous stroma, one sees that the lacunæ are circumscribed by a fibrous railing; their contents the same as are those of the *intra*-papillary spaces, a granular—a granular matter finely divided in some places, mingled with leucocytes; also, some arterioles are seen. In the lowest part of the stroma is revealed a considerable hypertrophy of the fibrous tissue, between the muscular fasciculi, which (the latter) becomes the more abundant as you approach the limit of the sub-mucous bed. These muscular fasciculi are normal as regards their dimensions and striation; but they do not constitute an accessory element in the same degree as they do near the limit of the section. What remains is chiefly fibrous tissue, mingled with a number, more or less great, of embryonal elements, which are, however, the dominant factor of this part. This fibrous tissue just mentioned abounds in lacunæ, resembling those of the sub-mucous tissue proper.

A single lacuna of the sub-mucous tissue, examined under a power of about 450 diameters, shows that its wall is formed of fibrous tissue—that its contents consist of a finely-granular substance, together with leucocytes, and no blood globules (red discs). Finally, one sees very clearly flat cells of connective tissue, lying loosely in the lacuna entirely detached from its wall.

Do these lacunæ belong to the lymphatic or vascular system? We do not think it a doubtful question. In any of the lacunæ, whether they be superficial or deep, one does not see blood globules (red discs); besides, they are for the most part filled with a granular substance, probably albuminous, fibrinous in some places, which material would imprison, if they were present, the blood globules in the lacuna. Again, blood vessels are few in the preparation. One can see, however, arterioles, but they are widely spread; and through the whole depth of the section, there appear only two or three veins, dilated with blood. These lacuna can but belong to the lymphatic system—their contents and arrangement indicating their function. The papillary spaces correspond to the lymphatic network so abundantly described by Sappey—a network which is irregularly dilated. The hypertrophy of the fibrous tissue, together with the lymphatic lacunæ recalls the appearance of elephantiasis.

En résumé. The examination of this section shows that it is formed, in great extent, of lymphatic extensions, as has been demonstrated by Virchow and Billroth in analogous

cases. M. Grancher, in an examination of an hypertrophied lip, has seen similar particulars.—(*Le Progrès Médical*, Jan. 1st, 1881.)

Rapid Dilatation of the Female Urethral Canal.—At the meeting of the Société de Chirurgie, of the 29th of December, M. Terillon reported a memoir by Prof. Simonin, of Nancy, entitled “Recent Facts Concerning the Rapid Dilatation of the Urethral Canal in the Female.” This mode of dilatation, already made use of by Astley Cooper, and many authors in this country, renders possible not only the exploration of the bladder, but also the removal of foreign bodies, such as calculi. M. Simonin dilates the part by means of an anal speculum, of which the greatest calibre is 24 millimetres in diameter (about an inch, English). The symptoms following this little operation are inconsiderable—little or no pain, and no incontinence of urine; nevertheless, in one case, a violent cystitis occurred after the taking away of a calculus. M. Terillon asks the question, “Are not the conclusions of Prof. Simonin premature, in view of this latter case?” M. D’Esprès stated that a discussion had already taken place regarding this matter in the Society, some of the members advocating a rapid—others, on the contrary, a gradual dilatation—he himself preferring the gradual method.

M. Marc Sée has practised dilatation of the female urethra (following Simon, of Heidelberg) by the successive introduction of graduated dilators. Those of small calibre are easy to introduce; the larger are more than proportionately difficult: so that it is often necessary to split open the meatus; nevertheless, the results of this method are excellent. It permits the easy exploration of the bladder, and is of great service in rendering it accessible in chronic cystitis, attended with tenesmus. It is necessary only to add that when rapid dilatation is practised, the patient should be under the influence of chloroform.—(Reported in *Le Progrès Médical*, 8th Jan., 1881; also in *Le Practicien*, Jan. 10th, 1881.)

From the French and Spanish. By CHAS. R. CULLEN, M. D. (P. O. Richmond, Va.), Henrico Co., Va.

French Views on Intermittent Fever.—Several factors are regarded to constitute miasm and variations of temperature, such as want of equilibrium in the air from sunset to sunrise, heat during the day, humidity of the air due to the vapor of water, etc. These thoughts I have maintained for

fifteen years: 1. Intermittent fever *can be produced* from other causes than miasm. 2. Intermittent fever can be cured by medicines—not classified as anti-periodics. Whatever the hypothesis one may adopt, it is incontestible that the moments when the organism is most subject to intermittent fever are those which mark the commencement and end of the night. In the middle of the day, the body is proof against contagion. The vapors of the night are condensed, and become contagious; but the rising sun scatters these noxious vapors. The inhabitants on the river Nino, in Italy, are subject to fever for some few hours, while in the Tuscan Maremma there is no fever, though the buildings are surrounded by marsh. The residents in that locality attribute their immunity to their habits of retiring in their houses before sundown, and not leaving their houses till after sunrise, and always to sit before a small fire during the evening and morning, and to drink a glass of wine or alcoholic liquor. In addition, they wear clothing made altogether of woolen goods.

Another example I offer: The Moors, from time immemorial, are engaged in the Spanish vineyards, on the plains of Mitidjoh, where they contract intermittent and pernicious fevers, from not adopting the hygienic rules of their employers. Along the plains of Gola—also well cultivated, and surrounded by mountains, and without marshes—the inhabitants can barely remain there from the months of June to the middle of October. During the intense heat of the day, without wind, diseases are contracted by inhaling the air; but if a breeze of wind reduces the temperature 18 or 20 degrees F., the system becomes more subject to disease, and fevers immediately supervene. Near Ajaccio, is a wooded valley free from stagnant water; but the days are exceeding hot and the nights cold and humid, and dangerous fevers prevail. From the above facts, we deduce the rules insisted on, as above stated.

In the treatment of intermittent fever, it is best to commence with an emetic of tartrate of potassa. The sulphate of quinia is the specific—in doses of seven grains, seven or eight hours before the chill hour, which is improved by adding the wine of quinine.—(Dr. Pietra Sauta in *Journal d'Hygiène*.)

[*Note by Translator.*—Some years since it was reported that in the Pontine Marshes of Italy, bird-hunters slept in their boats during the night, with their feet over a small furnace of coals, and without any protection to the head, and

that disease seldom attacked the persons so doing. Without this precaution, the fevers were violent and often fatal.]

Salicylate of Soda in Venereal and Cutaneous Diseases.—Dr. Molinaria, of Brescia, has proposed recently this remedy. Many drugs have been used, but few are of any benefit. In soft, whitish ulcers and eczemas (humid and impetiginous), it is a good remedy. It is given in powder and in liquid forms, and the result is alike very flattering. Salicylate of soda, to which alcohol is added, is soluble in water. If used as a powder, it should be mixed with starch—covering the ulcer with it. The author cites various cases of its beneficial effects.—(*Revista Buenos Aires*.)

Treatment of Malignant Pustule by American Bole—(By Dr. Manuel Marin.) This remedy has long been known in Spain for malignant pustule. The bole is compounded with the yellow of one egg, a little common salt, and one grain and a half of the bole—sufficient to make a pomade. Several severe cases of malignant pustule rapidly healed by applying only the above pomade.—(*Revista Madrid*, No. 88.)

[*Note.*—The credit is here given to the American bole, when it is doubtful if the yolk of the egg did not possess as much curative effect as the bole. For irritable ulcers and burns, there is nothing better than the white (albumen) or the yolk of eggs.—*Translator.*]

Treatment of Phagedenic Chancre by Pyrogallic Acid.—Dr. Vèdal has tried this drug in many severe cases of chancres of all kinds, some few of which are reported. In one case the ulcer was eating rapidly. A pomade of this article being applied, the change for the better was immediate, and in a few days the chancre was well. In another case the ulcer was hard and phagedenic, and very irritable, and the cure commenced as soon as the salve was applied. In many affections of the skin, the same good effects have been observed. The proportion of the acid varies from ten to twenty parts of the acid to one hundred of lard or simple cerate.—(*Paris Chir. Pract.*)

Benzoate of Soda in Phthisis.—Dr. Guttman read in the Medical Society of Berlin a notable article on the inhalation of benzoate of soda in the treatment of phthisis. The theory on which is based the treatment is explained. In 1877, Dr. Klebs noticed that tuberculosis was a contagious affection of a parasitic nature, occasioned by microscopic organisms which penetrated the whole body, and which can only be cured by agents which destroy these organisms. Klebs

demonstrated experimentally the parasitic origin of tuberculosis in the following manner: He placed a small particle of tubercle in a solution of albumen, and in a little while there appeared an infinity of microscopic organisms, and successively in fresh solutions the tubercle was dissolved. With this solution he injected the veins of a dog, and killed the dog, and found a multitude of miliary tuberculous tubercles. Klebs was assured that he discovered similar microscopic formations in the tubercles of man and animals, under the form of minute bodies, in the round tuberculous cells, and at times endowed with active movements.

Prof. Schuller, of Grespwald, a short time afterwards, published experiments corroborating those of Klebs: the tuberculous matter being introduced in the trachea, and after a short time produced death by tuberculosis. Animals, inoculated in the same manner, and followed by similar symptoms of bad health, were cured by inhaling benzoate of soda for several weeks. Dr. Graham-Brown has observed in the laboratory of Prof. Klebs that diphtheritic matter could be injected with impunity into animals, if followed by inhalations of benzoate of soda. In consequence of these experiments, he followed the treatment of phthisis by the inhalation of benzoate of soda.

Dr. Guttman has published, in the *Baracken Lararett* of Berlin, the results of 31 cases—24 men and 7 women—from 16 to 56 years of age. The disease was generally in the most advanced stages. The temperature was taken three times a day, and inhalations of benzoate of soda were given twice a day. In the first inhalation, he used 5 grammes of the salt to 100 of water. Finally, at the recommendation of Rokitansky, he adopted the proportion of $\frac{1}{1000}$ th by weight. Of the 31 cases, 15 were subjected to treatment three weeks, 6 from 14 to 19 days, and the remainder 8 to 9 days. Four did not tolerate the inhalations, and were given the medicine by the stomach—20 grammes dissolved in 200 grammes of water; of which, take a large spoonful every half hour. Nine died in the hospital, and the others did not improve. In the autopsies made, no lesions of the lungs were cured. In two cases, the inhalations appeared to bring on hæmorrhages.

The discussion of the article of Guttman was before the Society. Dr. Frankel considered phenic acid superior to benzoate of soda as an antiseptic. Dr. Sinata had also used the benzoate of soda without good results. Dr. Wolf had no doubt of pulverized substances penetrating the lungs.

He had injected rabbits with a solution containing bacteria, and one or two hours afterward had discovered them in the pulmonary parenchyma. His investigations *do not* confirm the parasitic theory of phthisis. He examined different cases of miliary tubercles, with the object of discovering the presence of bacteria, but without avail. The granulations of gigantic cells—mistaken for bacteriæ—disappear with chloroform and cold acetic acid.—(*Revista*, No. 97.)

New Electric Apparatus to Illuminate the Natural Cavities of the Human Body.—A brilliant meeting of medical men was held by the Imperial Society of Medicine of Vienna. All the leading medical men in private practice and in the army and navy were present to hear Dr. Netré, of Dresden, and Dr. José Lister lecture and explain the different instruments. The fundamental difference between this instrument and all similar ones is, that the one on exhibition is *introduced into the cavity* to be examined, and, by means of different lenses, a full view of everything is obtained. The instrument affords bright light, but without heat, and does not elevate the temperature of the organ.—(*Gazetta Medica de Mexico*.)

Epilepsy in the Madrid Academy.—Dr. Cabullen said that, thanks to recent investigations, many of the symptoms of nervous diseases which had been considered essential to epilepsy had been noticed in other and less serious diseases. It was often difficult to distinguish between epilepsy and hysterical epilepsy, and it was necessary to make a critical study of each case to detect the difference. The cases varied with the causes, and the effects, so called, very often were not necessary effects, but only sequences.—(*Revista*, Madrid, No. 92.)

Chancres in L'Hopital de Midi, Paris.—In 1,773 cases, there were 50 cephalic chancres, as follows: 37 on the lips, 8 on the tongue, 3 on the nose, and 2 on the eyelids; and these will vary according to the facility of contagion. The frequency of cephalic chancres is greater in women than in men, and much more frequent in children at the breast, and also more often observed in old nurses having charge of syphilitic children.—(*Ibid.*)

Disarticulation of the Head of the Femur.—A youth of ten years was caught in machinery, and the femur badly broken into comminuted fragments; the tibia and the perineum were also lacerated. The case progressed favorably under Lister's method, and in twenty-seven days the patient was well.—(*La Clinico de Malaga*.)

Gastrotomy Applied to the Treatment of Uterine Fibrous Tumors.—Dr. Tillaux remarked before the Academy of Paris that on the 27th of October, 1872, Demarquay read an article on the reports of Drs. Kœberle and Boine, on the subject of removing uterine fibroid tumors by gastrotomy, and concluded that the operation ought to be performed. These conclusions were nearly all advocated by the Academy. In the month of November of the same year, Demarquay again signified the same views. In 1877, St. Pean presented a tumor before the Academy which he had removed that day. Dr. Tillaux admits these three results, necessitating operations, as follows:

1. Incurable uterine hæmorrhages.

2. Intolerable pains, dragging down the life of the sufferer.

3 Intestinal occlusion.

In the last case the operation is much more practical, and offers more hopes of successful operation. Dr. Tillaux followed out practically the first of these indications in the operation on a woman thirty-five years of age, in the Hospital of Lavoisier, in 1876. After two months of treatment, she went from one hospital to another, during the next three years, until the 5th of March, when she came to him. She had lost so much blood that she was hardly more than skin and bones, and evidently was near the point of death. She was fed for two weeks to impart strength for the operation. On the 17th of April, with the assistance of Drs. Perier and Lucas Marchand, he operated, following out Lister's method. The tumor weighed two kilogrammes—a little over five pounds—and the operation was entirely successful. The Academy ought not to continue under the opinions of Demarquay in 1872.

Dr. Duplay, in reply, stated that, though the opinion of 1872 was unchanged, the faculty could be convinced of the utility of the operation since 1853, when an American surgeon (Kimball) performed hysterotomy for the first time. Drs. Kœberle and Boine have continually performed similar operations. Dr. Duplay has been able to report 113 cases of hysterotomy, consisting of fibrous and fibro-cystic tumors. Of the pure fibrous tumors belonging to the uterus, 17 cases—5 cures, 12 deaths; and extirpating the uterus, 55 cases—22 cures, 32 deaths. Of the fibro-cystic tumors, 41 cases—19 deaths, 46 cures. Uniting all the statistics, there were 50 cures and 63 deaths.

Dr. Nemuel believed that the increasing love for opera-

tions had proved fatal. Without having tried less dangerous means, some wished to extirpate the larynx, others the spleen, and others the kidney, and contents of the alimentary canal, including the stomach, colon, and bowels generally. There is no operation in the dead body which some surgeons won't desire to try on the living body. But in all these operations he ought not to include ovariectomy; and between this and hysterectomy there is no comparison. In fact, ovariectomy is superior to all the so-called remedies, and the only means of relief.

Proceedings of Societies.

FAUQUIER (CO., VA.) MEDICAL SOCIETY.

Time of Meeting of Next Annual Session of Medical Society of Virginia—Subcutaneous Injection of Ergotin for Adherent Placenta—Delegates to American Medical Association.

Warrenton, Va., Jan. 24th, 1881.—At the regular quarterly meeting of the Society, held to-day in the rooms of the Young Mens' Christian Association, the following members were present: Drs. W. D. Cooper, President; J. W. McIlhenny, Vice-President; T. M. Jones, Secretary; H. M. Clarkson, Corresponding Secretary—besides the following members: John A. Chilton, J. H. Cochran, J. G. Cooke, W. F. Cooper, Hy. Frost, — Harris, George S. Hamilton, R. I. Hicks, J. P. Slaughter and T. W. Smith.

After the reading of the minutes of the previous meeting, Dr. Clarkson made his report as Corresponding Secretary, and submitted the following preamble and resolutions, which were adopted unanimously:

“The Medical Society of Virginia having selected Warrenton as the place of its next annual session, and having invited this Society to an expression of its preference in regard to the time when such session shall be held; therefore,

“*Resolved*, That the Fauquier Medical Society, through its Corresponding Secretary, respectfully suggests the 4th, 5th, 6th and 7th days of October as a season most conducive to the good of the Medical Society of Virginia, and as, perhaps, the least conflicting with the individual interests of its Fellows.

“*Resolved*, That this expression of an opinion, based upon reasons, which have been forcibly presented in a leading

editorial in the November number of the *Virginia Medical Monthly*, is merely a suggestion for the consideration and final decision of the Executive Committee of the Medical Society of Virginia."

On motion of Dr. Cochran, it was resolved that the medical faculty of Warrenton—President Cooper and Drs. Clarkson and Harris—be appointed a committee to make arrangements for the reception of the Medical Society of Virginia in October next.

It was agreed, on motion of Dr. Jones, that the regular debate of the day be postponed, in order to hear Dr. Harris' remarks on his recently-published article on the treatment of prolapsed rectum. The Doctor related the case, and brought out a discussion, participated in by Drs. Chilton, Clarkson, Jones, Cochran and Hicks.

Dr. Hicks, by invitation, then read a volunteer report of "The Treatment of Two Cases of Adherent Placenta by Subcutaneous Injection of Ergotin."

The debate on this subject was participated in by Drs. Chilton, Hamilton, and the members generally.

On motion of Dr. Chilton, it was resolved that Drs. Clarkson, Hicks and Hamilton be appointed delegates to the American Medical Association, which meets in Richmond, Va., on the 3d of May next.

On motion, the meeting adjourned.

Analyses, Selections, etc.

Eucalyptol in Albuminuria.—Dr. William B. Hazard, of St. Louis, Mo., states in the *St. Louis Clinical Record*, February, 1881, that Dr. Louis Bauer, of that city, has been engaged for some investigating this comparatively new drug. In advance of a full report, Dr. Hazard reports a case which was also under Dr. Bauer's observation, in which the patient *seemed* to be a victim of genuine Bright's disease. A gentleman, aged 45, was constantly exposed to sewer gas. Soon he had malarial fever and disarrangement of digestive powers. When at last the patient came under the Doctor's observation, moderate ascites and anasarca were also present, with a hydræmic cachexia, and with a tinge of yellow to the skin. Liver and spleen enlarged, but not tender. Vital functions were languid; stools and urine scanty. Micro-

scope revealed no evidence of renal disease; but proper chemicals precipitated a large quantity of albumen from the urine. He was at no time entirely free from fever, and there were exacerbations of a marked tertian type, which terminated without the usual supplementary critical discharges. The skin was inactive. The patient would not leave the premises; hence the cause of his sickness was not removed.

To arrest the febrile disturbance, large doses of quinine were given, but only with partial success—even with the addition of arsenic and iron—until after the sewer was put in complete order. But then the dropsical condition did not diminish; indeed it even increased and materially interfered with respiration, and the percentage of albumen in the urine likewise augmented. Moderate purgation gave no relief; nor did hot air and variously medicated warm baths change the inaction of the skin; various diuretics failed to increase the urinary secretion. Then it occurred to Prof. Bauer to employ the diuretic action of eucalyptol, which was given him in the shape of an emulsion, and the dose gradually increased from five to fifteen drops four times a day. From the start the patient was benefitted. The albuminuria steadily diminished, and at the end of ten weeks the dropsical symptoms were completely relieved. Repeated examinations of the urine have since been made, but not the slightest trace of albumen has been discovered.

Since the above case occurred, Prof. Bauer has treated two other patients in similar, but less aggravated conditions, with eucalyptol, and it has accomplished the same prompt and enduring benefits. Hence, he feels warranted in commending the drug as a reliable diuretic.

The eucalyptol employed by the doctor was furnished by Messrs. Sander & Son, Sandhurst, Australia.

A Death from Ether has occurred at Jefferson College Hospital, Philadelphia. The patient, a woman, aged 26 years, was a patient of Dr. J. R. Levis, who was to operate upon her for fibrous ankylosis of the hips. She had taken ether previously without ill effects, and her viscera were all healthy. She took between two and three ounces of ether, and the operation was safely performed. She did not rally from the anæsthetic, however, and in spite of stimulants, an hour and a half after etherization commenced, she died. *Post-mortem* revealed nothing abnormal. Shock may have had something to do with the fatal result.—*Med. Record*, February 26, 1881.

To Terminate Chloroform Narcosis.—Schirmer claims (in *Centralblatt für Augenheilkunde*, February, 1881) to have used a peculiar device for many years in his clinics to arouse patients from narcosis due to chloroform. By it he has often succeeded in producing inspiratory movements under such circumstances when other means have failed. He has also employed it to produce rapid recovery, for instance, in strabismus operations, in order to test the result. The method consists in *irritating the nasal mucous membrane*. It has long been known—at least to physiologists—that the fifth pair of nerves retains its sensibility longer than any other part of the body in anæsthetic narcosis, and that reflex effects may be induced through this nerve when irritations of other parts of the body fail to arouse the patient. Schirmer uses simply a rolled piece of paper, like a paper candle-lighter, which he introduces into the nasal meatus and then turns it around. In dangerous cases, he dips the paper in aqua ammonia before introducing it.—*Chicago Med. Review*.—*Toledo Med. and Surg. Jour.*, December, 1880.

Colds Incurred by Means of Draughts, Night Air, and by Petty Acts of Commission and Omission.—Most persons have been taught by experience that it is dangerous, while they are in an over-heated condition, to remain in a locality where a current of cold air can strike but a limited part of the body, especially the head, neck or shoulders. Many often forget this, not possessing the will to bear patiently for a time the *temporary* discomfort of an over-heating, and for relief, take a seat at an open window. They incur a cold, which, even in the most trifling cases, will be certain to last double as many days as the temporary discomfort of the over-heating would have lasted half-hours, had they retained an unexposed location; and with many persons, a cold incurred in this way may be so serious that its effects may be felt during the remainder of their life, if it does not shorten life itself.

Exposure to night air should be avoided if possible. If compelled to be out at this time, more clothing should be placed around the neck and chest than is usually worn during the day. It would also be well for females, who are to go out in the night air, during cold or damp weather, to draw on over their shoes a pair of thick woolen stockings, long enough to reach nearly to the knees.

A stay of three or four hours in a hot theatre or lecture-room, where the atmosphere is impure, succeeded by a ride

in the street cars, or an open carriage ten or twelve squares—equal to an exposure of half an hour—is sure to be followed by an increase of catarrhal symptoms, unless precautions are taken to ward off a cold by placing extra protection on the head, around the neck, and on the lower extremities. In addition, it will be well to protect the hands and wrists in cold weather, the former by woolen mits and the latter by wrist-lets or pulse warmers, as they are popularly called.

There are many petty acts of commission and omission in the care that one should take of himself, or herself, that are the result of forgetfulness, or, frequently, of carelessness, which are almost certain to originate a cold; the most conspicuous of which are sitting on a stone door-step in a cool evening till a late hour in the night; sitting up late on a cold night after the fire in the room has gone out, then going to bed with cold feet; getting out of bed during the night in bare feet and in night-dress to wait on a child that is sleeping in a cold room; making a fire in the morning of a cold day in an undressed condition; standing in an open doorway during cold or damp weather with the head and shoulders insufficiently protected, to speak a *few* words to a friend who is (too slow in) taking his or her departure; stopping to speak to a friend on the sidewalk long enough to allow the feet to become cold and to experience a sensation of cold chills between the shoulders; making a call on a friend who receives company in a cold parlor, or in a parlor in which the fire is started on your entrance; receiving lessons or giving lessons on a piano in a cold room; seeing a friend out to the gate and then standing there until warned of the impropriety of the act by a sneeze or “cold streaks” coursing up and down the back. For the protection of those young patients who cannot forego the pleasure of the “parting at the gate,” I would recommend that their guardian should have a movable gate constructed and placed in a room adjoining the parlor.—*Dr. Rumbold's Hygiene of Catarrh.*

Rapid Dilatation of the Female Urethra for the Cure of Cystitis.

Prof. Wm. Gardner read before the Medico-Chirurgical Society of Montreal a paper upon this subject, in which he reported a case and reviewed at length the history and value of this method. He claims that chronic cystitis is admitted on all hands to be a most distressing, painful, tedious and debilitating disease. Its internal treatment by drugs, and its local treatment by injections, are almost always tedious, often unsatisfactory, and not rarely altogether unsuccessful.

After trying in vain many routine means and agents, Dr. Gardner resorted to dilatation. The result was successful. In America, Noeggerath, Mundé and others of New York, and Goodell, of Philadelphia, strongly advocate and frequently practise this operation. Mr. Christopher Heath, of London, has also published favorable accounts of its employment. The principle opponent to the operation at the present time is probably Dr. Emmet of New York. In the course of a discussion on the subject at a meeting of the New York Obstetric Society, in March, 1878, Dr. Emmet remarked that he had seen at least half a dozen cases of incontinence follow the operation performed by other surgeons, and that in eleven cases by himself, two had permanent incontinence; and that, moreover, he knew of no benefit from the procedure in chronic cystitis. On the other hand, Dr. Noeggerath, at the same meeting, reported that he had performed the operation seventy-five times, with incontinence lasting longer than four weeks in only two cases. A feasible explanation of the discrepancy in results obtained by these two operators has been suggested by a recent reviewer of the second edition of Dr. Emmet's book—that it is because the index-finger of the latter is at least one-third larger than that of Noeggerath. A careful examination of the experience of a considerable number of operators, would seem to show that the operation is free from danger of subsequent permanent incontinence of urine, if the urethral tissue be fairly healthy, and if the dilatation be not carried to an extent greater than is necessary for exploration by an index-finger of medium size, say three-quarters of an inch; and, moreover, that the majority of the cases of incontinence have followed dilatation for the removal of large calculi; which, undoubtedly, in the present state of surgical experience, ought always to be removed by vesico-vaginal incision.—*Canada Med. and Surg. Jour.*, February, 1881.

Treatment after Ovariectomy.—Dr. William Goodell contributes a letter to the columns of the *Clinical News*, February 5, 1881, in which he lays down such general and special rules as will be found serviceable, especially by young operators, country practitioners, and others who may have charge of the after-treatment of ovariectomy cases. To conduct such a case through such a critical period, is an undertaking of great responsibility. The patient should be kept perfectly quiet and free from all intrusion. For the vomiting, which is partly from the ether and partly from the shock,

chloral may be given, or lumps of ice may be swallowed. Sips of very hot water, or a tablespoonful every hour of a mixture containing equal parts of lime-water and cinnamon-water, are also good remedies. A hypodermic of morphia will often allay it; so also will minute doses of atropia. Five grains of bismuth, one drop of dilute hydrocyanic acid and three drops of wine of ipecacuanha, rubbed up with equal parts of water and syrup of acacia and administered every hour, often causes it to yield. Flatus is another very annoying symptom, which, however, can very generally be dispersed by turning the patient on her side and inserting a flexible catheter as high as possible up the rectum. If this fails to relieve it, enemata of turpentine may be tried. When the abdomen is painfully distended, the binder may be loosened and the adhesive straps nicked in several places. For the first thirty-six to forty eight hours after the operation, nothing whatever should be given to the patient, excepting cracked ice and an occasional teaspoonful of old brandy. After that, teaspoonful doses of milk, of beef tea or of barley-water can be given every two to four hours. The diet may then be cautiously increased—especially if wind begins to escape from the rectum. For a week the urine should be drawn off by the nurse, and the bowels kept bound by a morning and an evening opium suppository. She must then take an enema, or some mild aperient, and thereafter may herself pass the water. With the exception of the morning and evening suppository, no other anodyne need be given unless called for by pain, wakefulness or restlessness. Should the body-heat indicate a temperature of 100° or over, a bladder filled with ice should be kept on the head of the patient as long as it does not chill her, and it feels comfortable. Peritonitis must be treated by a bladder of ice to the pit of the stomach in addition to the one on the head, and by large doses of quinia and morphia. The dressing being antiseptic, need not generally be removed until a week or nine days have passed. Every other stitch may then be removed, and the wound washed with a five per cent. solution of carbolic acid and dressed with any bland ointment. Three or four days later all the stitches should be removed, and the wound covered with short and narrow strips of adhesive plaster. For fear of a weak cicatrix, and the formation of a hernia at the site of the wound, the patient should not get out of bed until fully three weeks have passed, and should for as many months more wear some kind of gored binder or abdominal supporter.

Concerning Consumption.—It is within the memory of the elder practitioners that consumption, except in rare cases, was considered incurable. Looking at phthisis to-day, we are justified in believing that the possibility, the probability of cure, or rather of recovery, is considerably more likely than it was twenty years ago. The downward tendency is less pronounced. The phase of the existing cycle, as regards consumption, is more favorable, and the better per cent. of recoveries, as compared with twenty or thirty years back, is, in a greater degree, due to this existing favorability of the tendency of the disease than to any treatment, either in the general plan or in the particular employment of drugs or other supplementary procedures. If it is asked to what is this more favorable condition due? the answer is that we have no answer; the fact is stated without any attempt at explanation of it. The history of all diseases is, that they have their periods of ebb and flow prevailing more generally in a given section for a period of years, and then declining; and tubercular phthisis, though perhaps never absent, is no exception to the law of rise and fall. The younger practitioner, who has learned to look upon it as a frightfully fatal complaint, is misled by his success, and is inclined to attribute his good results to some special agent or plan. The Salisbury plan is a good illustration of this tendency of physicians to attribute the result to a changed treatment rather than a changed disease which is being treated—*Clinical News*, January 1st, 1881.

Vesical Catarrh Treated by Establishing Urinary Fistulæ.—It has occurred to Prof. D. H. Agnew that life may be made more comfortable for those suffering from chronic cystitis by separating the connection of the ureters with the bladder, and bringing them out through the abdominal walls, establishing fistulæ either in the iliac or in the lumbar region, and thereby diverting the urine entirely from the bladder. That such a route for the escape of the urine is not so objectionable as might be supposed, will appear from the experience of two persons in this city who suffer from urinary fistula occasioned by accident—one of whom is able to attend to his occupation, that of a daily laborer, by swathing the body with a thick roll of bandage, by which the urine is absorbed. If the fistulæ were favorably situated, mechanical appliances might be constructed in which to receive the urine. The possibility of the procedure he has satisfactorily verified by dissections and operations on the cadaver. The plan pursued

was to make an incision beginning one inch below the anterior extremity of the last rib, and terminating two inches below the anterior-superior spinous process of the ilium. After dividing the skin, superficial fascia, external and internal oblique and transversalis muscles, the transversalis fascia is next broken up, together with the loose tissue connecting the peritoneum with the iliac fossa. It only remains to detach carefully the serous sac until the primitive iliac vessel is reached, at the bifurcation of which into external iliac and internal iliacs, the ureter will be found to pass into the pelvis. Following the tube down, it should be severed as near to the bladder as possible, two ligatures having been previously applied (the lower one catgut), and the division made between the two threads. To relieve any tension on the ureter, a puncture is next made through the parietes a short distance above the upper angle of the wound, and the urinary duct piloted through by means of a probe secured to the end of the ligature previously attached to the ureter. Then detach the thread from the duct, and secure the latter by two stitches to the external opening, after which the main wound can be closed. It would not be proper to operate on both ureters at the same time. The patient should be allowed to recover from the first before proceeding to the second. Nor would such a surgical procedure be advisable if there was reason to believe that the kidneys were seriously implicated. *Phil. Med. Times*, Feb., 1881.

Sclerotomy in Acute Glaucoma.—Dr. M. Landesburg, of Philadelphia, is an enthusiastic advocate of sclerotomy in glaucoma. He thinks eserine not only does no good, but does harm, inasmuch as its primary result may lull the patient and physician into a delusive security, endangering thus the favorable chances of another more efficacious therapeutic action. He thinks operative interference offers the only hope. The procedure known as sclerotomy consists in making an incision at the scleral border of the cornea, as if about to form a flap for linear extraction of cataract without excision of the iris, and thus avoid the prolapse of the latter. It is a simplification of the operative procedure now adopted, and has many advantages over iridectomy, and shares with the latter its curative effects. He thinks in the following instances it should be substituted for iridectomy: in absolute glaucoma, secondary glaucoma, and glaucoma-like conditions of the eye, as observed in iritis, serous choroiditis, in certain forms of keratitis, &c., in cases of glaucoma, in which iridee-

tomy has been made, and the re-appearance of the glaucomatous process indicates the repetition of the operative procedure. He bases his opinions on his experience in a number of cases in which sclerotomy had the same beneficial effect as of a successful iridectomy, and had besides this great superiority over iridectomy, that, by leaving the iris intact, it saved the eye from so many optical disadvantages (symptoms of dazzling, polyopia, etc.), which are often caused by the coloboma. To say the least of it, we do not, in the least, endanger the condition of the eye by first trying sclerotomy; being enabled, in any emergency, to add to the section of the sclera the excision of a piece of iris, and thus change sclerotomy into iridectomy—*Med. & Surg. Reporter*, Feb., 1881.

Pain and Anodynes.—Dr. Roberts Bartholow, of Philadelphia, says: Several elements enter into the composition of pain—the peripheral irritation, the transmission of the impression to the centre, and its realization by consciousness. Hence, pain may be relieved either by interrupting its transmission to the centres of conscious impressions, or by suspending the functions of these centres. For example, aconite and gelsemium relieve pain in the former manner, and the anæsthetics in the latter. The anæsthetics, when applied locally, however, have an effect similar to that of aconite, and are, therefore, antagonistic to both peripheral and centric neuralgia. When a few minims of chloroform are injected into the neighborhood of a nerve-trunk, the peripheral expansion of the nerve is put into an anæsthetic and analgesic condition; and since he introduced this method of treating sciatica, cervico-brachial and intercostal neuralgia, coccydynia, and other neuralgias of nerves in accessible situations, his experience has been extremely satisfactory. The needle must be inserted deeply, since merely to inject chloroform under the skin, like morphia, is perfectly useless in such neuralgias, unless the nerve-trunk is in the immediate vicinity. No danger attends this expedient, and inflammatory induration and abscesses very rarely result from it. The most powerful means for relief of pain which is now in our possession—the subcutaneous injection of morphia and atropia together—is an illustration of the advantages derived from the study of physiological antagonism. By this combination the anodyne qualities of the two agents are enhanced, rather than diminished, while the disadvantages of each are in a great measure obviated. The combined use of morphia and atropia is, also, the best preventive of the

tendency of anæsthetics, like chloroform and ether, to produce fatal paralysis of the heart or lungs; while the prescription of atropia simultaneously with chloral to a great extent averts the dangers that sometimes attend the use of that agent.—*Nashville Jour. of Med. Surg.*, Feb., 1881.

Uterine Function and Disease.—In studying diseases of the generative organs, we find that the vulvar diseases of children, the vaginal of young women, the cervical and uterine of middle and advanced age, mark usually the order of attack. When two organs hold a functional relationship, and are subservient to a like purpose in the economy, it is a rule that they reïact on each other to such a degree that one cannot suffer long and deeply without throwing the other into disorder. The os and fundus, being supplied by branches of the same nerve, and a sympathy existing between these structures, influences acting upon the os and cervix will produce congestion of the fundus. Hence, we have dysmenorrhœ, sterility, pelvic pains, gastric disorders and displacements of the womb; and by the increase of vascular congestion, we have an augmentation of secretion—leucorrhœ. The discharge and the condition which it produces tend to, and are apt to cause sterility. Pregnancy and parturition are the great causes of endometritis. Statistics show that pregnancy accounts for more than half. Most writers agree that most uterine diseases take their origin in the lying-in room. Reamy reports that in the examination of eight thousand women, supposed to be suffering from uterine disease, there were but nineteen cases of true ulceration. There are cases when the discharge, passing over the os, produces erosions, just like the acrid discharge from a child's nose will produce erosion of the upper lip. Mundé has, in seven hundred women examined, found but three such cases. The term laceration, and not erosion, is better applicable to most cases. Dudley says: "Just translate the words ulceration or erosion with patulous os into laceration of the cervix, and we have the facts." Dr. Cushing says, ninety per cent. of all cases of so-called ulceration are nothing more nor less than laceration. Dr. Emmet estimates that thirty-three per cent. of five hundred fruitful women coming under treatment had laceration of the cervix. Dr. Mundé says seventeen per cent., Dr. Hanks eight and a half, Dr. Baker ten per cent. Dr. Goodell says one out of every six of uterine cases have laceration. Montgomery states that fifty per cent. of women having children have laceration of the cervix.

Statistics show that forty per cent. are to the left side, fourteen per cent. are to the right side, and thirty per cent. are double. The greater frequency on the left side is thought to be because the occiput is directed to the left side. Chloral is as necessary in the early stages of labor as ergot is in the later. For this lesion there is but one remedy. Dr. Emmet first recognized thoroughly the lesion, and he demonstrated by his operation a rapid and reliable cure. The operation is one of the most simple, and yet one of the most satisfactory, in the department of uterine surgery. Peaslee said it was a master-stroke of genius. Dr. Fordyce Barker says his contribution on the subject is one of the most important which has been made to gynæcology. Says a late authority: "The man who succeeded best in the treatment of uterine disease was the one whose treatment was followed by the smallest amount of cicatricial tissue." Dr. Dudley puts the forcible statement, that if the operation was followed by none of the good results so confidently claimed for it, it would be a justifiable procedure, inasmuch as it causes those tissues which have been the object of so much violent and fruitless treatment to be removed from the field of the speculum and from the approach of the porte caustic.—Dr. P. V. Schenck, *St. Louis Courier of Medicine*, February, 1881.

New Remedies.—Dr. John V. Shœmaker, of Philadelphia, speaks of *oleic iodoform* made by mixing twenty-four grains of iodoform with one ounce of oleic acid, as an excellent preparation for the various scrofulous affections of the skin and scalp. It is employed successfully in enlarged glands, and as a dressing to carbuncles after incision. It has the advantage of being cleanly, and of concealing the unpleasant odor of iodoform. *Iodoform mixed with oleate of mercury*, in the proportion of twenty-four grains to an ounce, is also highly extolled. This preparation he employs in syphilitic affections involving the mucous surfaces, and in tubercles, ulcers and fissures located in different parts. In the different forms of eczema, tinea and favus he has found it useful. It is a destroyer of parasites. The *oil of ergot* he introduces as a remedy for many skin affections. It is the waste material left after the other medicinal ingredients of the drug have been separated. It contains lactic acid, cholesterine and resin. In acute eczema, as a local application, it is valuable in allaying itching and exerting a curative influence on the part. It is also of use in cracked nipples and herpes-preputialis, and in removing the scales and sebum which accumulate in the

different varieties of seborrhœa. The preparation is to be well applied to the scalp and other parts where scales are formed, to soften and prevent their formation. The whole should then be covered by cotton saturated with the oil, or flannel and this covered by oil silk. It is of use, also, in erysipelas, rosacea, catarrh of the nasal passages, and in cervical ulceration of the uterus.—*Transactions Penn. Med. Soc., Pittsburgh Med. Jour.*, February, 1881.

Bacteria a Cause of Anthrax.—One of the first diseases in which a bacterium was isolated and conclusively proven to be the cause, is anthrax or *malignant carbuncle*. The disease, which is primary with herbivora, occurs in human beings only from contagion through animals affected with it. One of the most frequent methods of infection is through the assorting of the wool or the horse-hair from animals that have died of anthrax. It may kill within a very few hours after its inoculation, or it may give rise to malignant pustules; or, as has lately been observed, it may show itself in the form of intestinal infection; and in the latter case the diagnosis is very difficult. In all the forms of anthrax, great numbers of large-sized immoveable straight bacteria occur. These bacteria are not homogenous in their structure, but upon examination in water they have the appearance of a string of beads. Inoculation with a drop of blood containing them, invariably produces the disease with characteristic bacteria in rabbits; and from the so infected animals others can be poisoned. In fact, the virulence of the blood is so great that a dilution with a million parts of water still shows positive results. Not only does inoculation with blood containing these bacteria produce the disease, but also blood containing only the germs of the bacteria. An interesting fact has been observed with regard to the effect upon the fœtus. The fœtus of a pregnant animal afflicted with the disease remains uninfected, and its blood is innocuous; whereas the blood of the mother is virulent. So that, although ordinary filters do not restrain the bacteria from passing them, the placenta is a perfect filter. It is a well known fact that the bacteria of anthrax require and absorb an immense quantity of oxygen, and it is supposed that the sudden apoplectiform nature of the death which often ensues, whereby an animal that seemed perfectly healthy a moment before, drops dead in an instant—that this mode of death is due to suffocation caused by the absorption of oxygen by the bacteria. Many things confirm this theory. The blood remains darkened fluid, and in fact

all the pathological changes simulate those found after asphyxia. The mode of death has been aptly compared with that of poisoning by prussic acid, wherein sudden asphyxia occurs from the action of the acid upon the red blood corpuscles, so that they lose the property of parting with their oxygen.—(J. O. Hirschfelder) *Pacific Med. and Surg. Jour.*, February, 1881.

Antiseptic Surgery in Vienna.—Listerism, in Billroth's practice, is replaced by simple irrigation with an antiseptic solution. Dr. Miculiez, his clinical assistant, has shown that the air is the least dangerous source of infection to which wounds are exposed. A litre of the air of an ordinary operating theatre has been found to contain ten germs, which, in a room which contains two thousand metres of air, would give a total of twenty million germs. Five times this number are contained in a single drop of decomposing fluid; so that, as the author puts it, there may be more germs under one of the operator's finger nails, or on the points of a single pair of forceps, than in all the air in the room. The atmospheric germs, moreover, are nearly all dry, and experiments show that dry germs are far more inert than moist ones, which are introduced into wounds by direct contact. It follows, then, that, both in respect to the quantity and quality of its germs, the air is a comparatively insignificant source of infection. Dr. Miculiez raises the question whether the spray fills the indications. He finds by a carefully conducted series of experiments, that the mechanical effect of the spray is to carry along with it and leave in the wound at least four times as many germs as would find their way there under ordinary circumstances. The concentration of the spray varies greatly with the amount of pressure by which the spray is produced, the distance of the spray producer from the wound, and the formation of the nozzle; consequently it is difficult to tell whether the spray is always strong enough to destroy the germs which it throws into the wound. The chemical action of the spray is found to do nothing more than to render the surface of the wound slightly antiseptic; while in the air, the contact of the vapor with the germs is not of sufficiently long duration to destroy them. In favor of irrigation it is claimed that no extra germs are thrown into the wound; that all germs which inevitably fall in are washed away instead of being allowed to stay; that, as the strength of the solution is always known, the operator can be sure that the wound is thoroughly disinfected, and that the patient is not

chilled by being kept in a cool vapor bath during a long operation.

Antiseptic surgery as practised by Billroth is as follows: Before beginning an operation, the part to be operated on is shaved, then scrubbed with soap and water, and finally washed with carbolic acid solution. If the skin seems greasy, it is washed with ether. The hands, instruments, etc., are disinfected. A small tank against the wall contains the irrigating fluid (a three per cent. solution of carbolic acid), which is brought within reach of the operator by a rubber tube, whose nozzle is furnished with a stop cock, by which the force of the stream is regulated. After the operation, drainage tubes and antiseptic dressings are used. The importance of immobility as aiding union is much thought of by Billroth. It is now ten months since the use of the spray has been abandoned in his practice, and his operations are even more successful than during its use. Since September, he has performed laparotomy eleven times. Two of these operations were hysterotomies—one per vaginam, the other through the abdominal walls. The remaining nine were ovariectomies. These operations were all performed in the General Hospital, without spray, and recovery in every case was perfect.—*Boston Med. and Surg. Jour.*, January, 20, 1881.

Excision of the Rectum.—There need exist no question as to the superiority of excision over lumbar colotomy as regards the control of the fæcal evacuations. In lumbar colotomy, incontinence is the rule, whereas, after excision, even including the sphincters, it is not difficult to understand why there should not be incontinence. It will become at once apparent, if we consider the physiology of defecation, which is partly a voluntary and partly an involuntary act. The former is exhibited by the control of the sphincter and of the abdominal muscles, and the involuntary element is the increased peristalsis of the colon. Normally, the rectum is empty. The proper receptacle for the fæces is the sigmoid flexure. When it becomes full, the pressure of its contents excites in its wall increased peristalsis, whereby the fæcal mass is forced into the previously empty rectum, and presses upon the sphincter. Thus, the movement of the fæces is entirely involuntary—due to increased peristaltic action of the sigmoid flexure. Now the voluntary part of the act commences. By inhibiting the action of the lumbar nerve-centre which controls the sphincter, this muscle is relaxed; pressure is, at the same time, made by the abdominal muscles,

also under the control of the will; and thus, as the result of the increased peristaltic action of the sigmoid flexure, the relaxation of the sphincter ani, and the pressure of the abdominal muscles, the fæcal mass is expelled. All this shows that the sphincter ani and lower part of the colon are not necessary to retain fæces. Statistics show that the patients are able to live comfortably by giving immediate attention to the desire to defecate. The limited statistics at our command show that the removal of malignant growths in the rectum is advisable and justifiable, when they are limited to a circumscribed spot, within three and a half inches of the anus, when the tumor has not invaded the deeper tissues, and is movable on the muscular coat of the intestine, and before the neighboring glands are involved. The danger of pyæmia appears to be very much over-estimated; at any rate, it can be met by the free use of drainage tubes and antiseptic injections.—F. J. Lutz, M. D., of St. Louis, in *St. Louis Med. & Surg. Journal*, Jan., 1881.

Hematropine in Ophthalmic Practice.—This new mydriatic is destined to play a prominent part in ophthalmic practice. Its effect upon the eye is exactly that of a solution of sulphate of atropia—it dilates the pupil and suspends the power of accommodation by paralyzing the ciliary muscle. Both of these agents are equally prompt in dilating the pupil and in suspending the power of accommodation; but it requires almost two weeks for an eye to recover from the effect of a one per cent. solution of sulphate of atropia, while the effect of a solution of hematropine of equal and even much greater strength subsides entirely within twenty-four hours. The rapid but brief effect of hematropine at once determines its relation to atropia in ophthalmic practice. It cannot be used advantageously (and consequently will not displace atropia) in the treatment of iritis and kindred diseases, in which a continued uniform mydriasis is of paramount importance. It should be employed in lieu of atropia whenever we wish to dilate the pupil temporarily for the purpose of ophthalmoscopic examinations, or whenever we wish to suspend the accommodation in testing the eye for certain anomalies of refraction. It saves time and prolonged inconvenience to the patient, as its effects pass off so quickly. In most instances, a one-half per cent solution will answer all purposes. It is strong enough to produce the desired enlargement of the pupil in fifteen or twenty minutes, and to paralyze the accommodation in thirty or forty minutes. Stronger solutions do

not seem to act more quickly.—Dr. F. C. Holtz, in *Chicago Med. Jour. & Examiner*, Feb., 1881.

Post-Partum Hæmorrhage—Treatment.—Dr. S. P. Sackett, of Ithaca, N. Y., writes: In order to be prepared for an emergency, the practitioner of obstetrics should, in each case, be armed with ergot, opium, veratrum, some diffusive stimulant, such as aromatic ammonia, aromatic powder or brandy, one of the per salts of iron, tincture of iodine, carbolic acid, permanganate of potash and alum, or aluminate of iron, glycerine, ergotine, and acetate of lead. He should also have at hand hot and cold water, vinegar, and syringes for hypodermic and for vaginal injections. Either opium or ergot may be given a short time before the termination of labor as a precaution against hæmorrhage. By tying the cord in only one place, the danger of adherent placenta and hæmorrhage is lessened. The practice of assisting the expulsion of the placenta by pressure and friction on the abdomen, induces uterine contraction and lessens the liability to flooding. If hæmorrhage does occur, while making these manipulations, I direct a nurse or assistant to ligate the thigh tightly with a cord—a practice that has been effective in other hæmorrhages, and might be in this. Should faintness or great prostration occur, give brandy. Should the pulse be full or hard, give successively or alternately ergot, opium, veratrum and large doses of acetate of lead. Without waiting for the effect of internal remedies, apply a piece of ice or cloth wet in cold water to the abdomen, and insert a piece of ice into the vagina. If ice or snow are not at hand, apply a hot cloth immediately to the abdomen. If these are not effectual, introduce a cloth saturated with vinegar into the uterus. Squeeze it so as to leave the vinegar, and withdraw the cloth as far down as the vagina. Should the hæmorrhage still continue, use the following injection successively into the vagina and womb. 1. Hot water of the temperature of 110° to 120°; 2. A solution of permanganate of potash; 3. A solution of glycerine and carbolic acid; 4. A weak solution of iodine; 5. A solution of some salts of iron, of which Monsel's is the best. Ergotine hypodermically may take the place of ergot. A pulse of one hundred or more, after delivery, indicates danger of hæmorrhage, and the patient should be watched.—*Med. and Surg. Reporter*, January, 1881.

Book Notices, &c.

Medical Diagnosis, with Special Reference to Practical Medicine. By J. M. DA COSTA, M. D., Professor of Practice of Medicine and of Clinical Medicine at Jefferson Medical College, Philadelphia, etc. Illustrated with Engravings on Wood. Fifth Edition, Revised. Philadelphia: J. B. Lippincott & Co. 1881. 8vo. Pp. 924. Cloth. Price, \$6. (For sale by Messrs. West, Johnston & Co., Richmond.)

We had occasion to commend the former edition of this work. Much more valuable is the present edition. Additions and corrections have been made, which, in the main, make the book almost complete.

We have not the space in which to notice special sections critically. Having, however, recently had under our observation two cases of "coffee-ground vomiting," which, as the successful results of treatment show, could scarcely have been cases of cancer, and which, by analyses of all the signs and symptoms presented, were evidently cases of "chronic ulcer of the stomach"—by some writers, howbeit, styled "the first cousin of cancer"—we naturally turned to the sections on the gastric ulcer, gastric cancer, etc. From a comparison of the symptoms, etc., in our two cases with the descriptions given by Habershon, Fox, Finlayson, and other authorities, and in consultations with capable physicians, we have been forced to the conclusion, that the only cause for the group of symptoms presented was chronic gastric ulcer. According to the experience of the practitioners with whom we have consulted on this subject, hæmatemesis is not usually abundant in cases of chronic gastric ulcer, but is generally small in quantity, and, changed by the gastric juices while remaining in the stomach, the blood vomited has most frequently the "coffee-ground" look—just as has the blood vomited in cases of cancer of the stomach. We think, then, that since many authorities make "coffee-ground vomiting" a symptom or sign as well of gastric ulcer as of gastric cancer, and since our own observations accord with this record, some modification should be made by Dr. Da Costa in his tabular statement of the differential diagnosis between these two diseases on page 479, as well as in the general text on gastric ulcer, etc.

But however this exception may be, as a general guide to the knowledge and discriminations of diseases, this book is without a superior. It should be a constant reference book

in the library of every practitioner. Its popularity as an authority may be better appreciated when we are informed that a German translation is now in process of publication by Hirschwald, in Berlin.

Remarks on Ovariectomy, with Relation of Cases and Peculiarities of Treatment. By NATHAN BOZEMAN, M. D., Surgeon to the Woman's Hospital of the State of New York, etc. New York: Wm. Wood & Co. 1879. Pamphlet. 12mo. Pp. 60. (From the author.)

This little book is a reprint of "Remarks" published in the *Medical Record*, July and August, 1879, and in a review of eight cases "taken without selection, as they presented themselves in my [Dr. B's] service at the Woman's Hospital within a period of eleven months." The peculiarity of Dr. Bozeman's treatment consists in the preparatory and after treatment, consisting mainly "in the early and continuous use of quinine and opium per rectum in conjunction with free and liberal support of the system by oral or rectal alimentation, or both at the same time, as means of preventing or controlling high temperature after ovariectomy." There seems to have been no special peculiarity in the operations themselves. Of the eight ovariectomies here recorded, seven fully recovered, and one—a carcinomatous case—died. Many useful suggestions for ovariectomists will be found in this little book—suggestions based upon actual experience, and on a close study of the records of other operators.

Photographic Illustrations of Cutaneous Syphilis. By GEORGE HENRY FOX, A. M., M. D., Clinical Lecturer on Diseases of the Skin, College of Physicians and Surgeons, New York, etc. Complete in Twelve Numbers. Forty-eight Plates from Life, Colored by Hand. New York: E. B. Treat. 1881. Nos. 1, 2 and 3. Price per No., \$2. (From Publisher.)

Each number of this most useful work to every general practitioner and teacher of cutaneous and venereal diseases will consist of four plates, printed from photographic negatives taken from life, on the finest quality of heavy cardboard, 10x12 inches, and colored by hand. Two pages of descriptive plate will accompany each plate. The work will be sold only by duly authorized agents or by the publisher himself, and no subscription will be taken for less than the completed twelve parts.

No. 1 gives plates and descriptions of syphiloderma erythematousum, pigmentatio post syphiloderma, leucoderma post syphiloderma and syphiloderma eremethatosum. No. 2 con-

tains plates and text of syphiloderma lenticulare, S. miliare, S. squamosum and S. papulosum. No. 3 treats of syphiloderma papulosum circinatum, S. papulo-squamosum, S. papulo-pustulosum and S. pustulosum.

If plates can be better made and more properly colored to represent the appearance of skin eruptions, we have never seen them.

Hand-Book of Urinary Analysis—Chemical and Microscopical: For the Use of Physicians, Medical Students and Clinical Assistants. By FRANK M. DEEMS, M. D., Laboratory Instructor in the Medical Department of the University of New York, etc. 12mo. Pp. 30. Cloth, 25 cents. New York: Industrial Publication Company. 1880. (From Publishers.)

This Manual presents a plan for the systematic examination of liquid urine, urinary deposits and calculi. It is compiled with the intention of supplying a concise guide, which, from its small compass and tabulated arrangement, renders it admirably adapted for use, both as a bed-side reference book and a work-table companion. The author is well known as one who has had for several years an extended experience as a teacher of this important branch of physical diagnosis, and he has compiled a manual which will serve to lessen the difficulties in the way of the beginner, and save valuable time to the busy practitioner. The arrangement of the matter, and the small though clear type in which it is printed, has enabled the author to compress a great deal into a very small compass, so that, while serving all the purposes of an analytical table, it is really a good deal more, although it is not, of course, to be supposed that this brochure can take the place of larger books.

Practical Treatise on Surgical Diagnosis—Designed as a Manual for Practitioners and Students. By AMBROSE L. RANNEY, A. M., M. D., Adjunct Professor of Anatomy, and Late Lecturer on Surgical Diseases of the Genito-Urinary Organs, etc., University of City of New York, etc. Second Edition, Enlarged and Revised. New York: Wm. Wood & Co. 1880. 8vo. Pp. 471. (From Publishers.)

That there was a demand for this work, and as a proof that the author has done his work faithfully and well, are shown by the fact in little more than one year after the issue of the first edition a second has been called for. The plan of this book is admirably conceived for practical purposes, and very full in scope. It is impossible, of course, to review

such a work within a few lines—all the space we can spare for the notice of a book. But had we the space, our criticisms would be almost always favorable. Dr. Ranney has eschewed, for the most part, disputed points, and has stated chiefly those signs or symptoms which are generally recognized by authors as belonging to the special disease under consideration. We most heartily commend the book as containing a great deal that is not mentioned in any one textbook on surgery—so far as relates to surgical diagnosis.

Aphorisms in Fracture. By RICHARD O. COWLING, M D., Professor of Principles and Practice of Surgery, University of Louisville, etc. Louisville: John P. Morton & Co. 1881. Paper. 12mo. Pp. 70. Price, 25 cents. (From Publishers.)

These “aphorisms” have, for the most part, been already given the profession through the columns of the *Louisville Medical News*. A thorough revision of the aphorisms there published have been made; and now they are collected in book form with the addition of fifty-four other aphorisms. They are all such as should be learned by the professor as well as practitioner and student. They will come into use in any practical surgical experience with fractures. We most cordially commend the book, which has, in addition, an instructive editorial from the *Louisville Medical News*, March 16, 1878, on “Fractured Femur—Does its Longitude vary with its Latitude?” The price of the monograph is only 25 cents.

Clinical Lectures on the Physiology, Pathology and Treatment of Syphilis, together with a Fasciculus of Class-Room Lessons, Covering the Initiatory Period. By FESSENDEN N. OTIS, M. D., Clinical Professor of Genito-Urinary Diseases, College of Physicians and Surgeons, New York, etc. New York: G. P. Putnam's Sons. 1881. 8vo. Pp. 116—xvi. Cloth. Price, \$1.50. (For sale by Messrs. West, Johnston & Co., Richmond.)

The known weight of Dr. Otis' opinion on the subject named in the title of this monograph gives recognition to his views with a great majority of the profession. In common with the leading authorities of this day, he recognizes a difference between the diseases represented by chancre and chancroid—the latter being a local disease. Besides taking a clinical view of his subject, Dr. Otis tries to trace a distinct connection between the initial lesion of syphilis and the subsequent manifestations of this disease upon a basis of known

physiological or pathological processes. It is claimed "that all the lesions of active syphilis have, for their basis, 'a cellular infiltration proceeding from the blood-vessels.'" The rationale of the treatment of syphilis in its various stages has also been based on a physiological view of the disease.

We confess that a perusal of this book has brought us to a clearer appreciation of the *modus operandi* of syphilis in passing through its several stages than we had before. And a more rational explanation of the good effects of mercury in the earlier stage, and of iodide of potassium in the later stages is given than we have elsewhere found.

The greater part of this book has been published during the past year in the *Boston Medical and Surgical Journal*. But in the present revised and more permanent form of these *Lectures*, they will be much more appreciated by the profession.

Fracture of the Femur. By EDWARD BORCK, M. D., St. Louis, Mo. With Illustrations. St. Louis: Geo. O. Rumbold & Co. 1879. Pamphlet. 12mo. Pp. 52. Price, in flexible cloth, 50 cents. (From Publishers.)

This little monograph is the second edition of a work which first appeared as journal articles. But in collecting them in book-form, careful revisions and additions have been made by the author. Dr. Borek, after describing the several plans of treatment as proposed by different writers, makes the following *résumé*: 1. The long splint, as well as the inclined plane, have been used from time immemorial; but the latter is superior. 2. No apparatus is perfect, and none answers for all cases; but each may serve well in special cases. 3. Shortening occurs in adults, but rarely in children. 4. It is not prudent to confine ourselves to one apparatus, although the surgeon who is accustomed to use one instrument can do better with it than he who applies it only occasionally.

Treatise on Diseases of the Eye. By SOELBERG WELLS. Third American Edition. Edited by Dr. C. STEDMAN BULL, of New York. Henry C. Lea & Sons, Philadelphia. 1880. 8vo. Pp. 895. (For sale by Messrs. West, Johnston & Co., Richmond.)

This, the latest edition of the above well-known work by the lamented J. Soelberg Wells, of London, is one of, if not the best text-book for students and practitioners published.

In addition to the many changes in the text of the earlier editions made by the author himself, the able American

editor, Dr. Charles Stedman Bull, has introduced so much additional matter necessitated by the recent advances in ophthalmic medicine that, in comparison with the former issues, it is, to all intents and purposes, a new book on the subject. It is such an exhaustive treatise on eye diseases, that it will prove invaluable to practitioners as a book of reference, and we would advise all who take an interest in this department of medicine to make such a valuable addition to their libraries.

PAMPHLETS, REPRINTS, ETC., RECEIVED, for which we have no room for further notice, but most of which can be obtained by enclosing a letter stamp for each pamphlet to the respective authors named.

On "*Kerion Celsi*"—a *Variety of Tinea Tonsurans*. By I. EDMUNDSON ATKINSON, M. D., Baltimore, Md. 8vo. Pp. 20. (From *Archives of Dermatology*, January, 1881.)
Case of Triplets. By HIRAM H. DARR, Hearne, Texas. 8vo. Pp. 2.

Editorial.

The Index to the Seventh Annual Volume of the Medical Monthly, completed with this (March) issue, will be published with the April number. We make this statement especially for the benefit of those who wish to keep bound files of the journal.

Close of Volume VII.—Whenever we come to the anniversary of any important period in our lives, it is natural that we should retrospect as well as prospect. With this feeling upon us now, at the close of our *seventh annual volume*, and about to engage in the *eighth annual volume*, we review our record with some pleasure in that we believe we have been instrumental in doing some good, at least, to a section of the country which was not represented for several years by medical journalism; and with some regrets that, with the encouragements constantly before us, we have not done all that we wish we could have done, had our circumstances been of a different character.

From the commencement of the *Virginia Medical Monthly*, in 1874, until this date, this journal has been kindly favored by the Medical Society of Virginia. The *Transactions* of this Society have been annually published as a part of the journal since 1874, and this, too, without solicitation from

the editor, as members of each of the several Committees on Publications of the Society can testify. Our repeated statement has been, when the Committee has approached us, that we would publish the *Transactions* at cost to ourselves, and give the volume as full a circulation as our subscription list would admit; and this circulation of the Society's *Transactions*—of from 1,800 to 1,900 copies throughout the United States, Canada, etc.—has cost but little more, if anything, than would have been the expense to have issued 400 or 500 copies of the volume separately, and distributed solely to the members of the Society and to exchanges. We commend the plan adopted by the Virginia Society to other State organizations. The *Boston Medical & Surgical Journal* in some measure performs this work for the Massachusetts Medical Society, in that it publishes most of the papers presented at the Annual Sessions of that body. The *North Carolina Medical Journal* first publishes the *Transactions of the North Carolina Medical Society*, and then reprints are, for the most part, made from the journal pages, as they stand in type for the journal. The Kentucky State Medical Society publishes its *Proceedings* and the regularly appointed addresses—such as that of the President—in pamphlet form, and then suggests to authors of other papers, presented at the several sessions, that they publish their papers in regular medical journals of their own selection. This latter plan has some arguments in its favor, which should not be overlooked by Societies which have an empty or a deficient treasurer's fund.

En passant, we might remark, while speaking in this random style of what has been, and what ought to be done, that *Societies* themselves should decide in what manner their *Transactions* should be published, and not leave the decision to a Committee on Publications of three or five or even of seven members, residing in the same community, when the decision of this Committee—however honorable and disinterested may be the composition of such a Committee—may awaken the envious jealousy of a few parties, and subject the members of the Committee to gross insinuations, of which they cannot satisfactorily relieve themselves until the subsequent annual meeting of a Society. Let a Society, and not a Publishing Committee composed of only a few members, decide in what manner their *Transactions* shall be published. Such a decision sometimes relieves a committee of a responsibility that a committee of a few members of a Society dislikes to assume, unless that committee has definite instructions.

Leaving the retrospective, and such thoughts as naturally suggest themselves at such a time, we come to the prospective. The outlook is encouraging, and our efforts to continue to work for our subscribers' good will be continued, even with greater zeal than heretofore. Some of our issues have been behind date, because of circumstances which we could not control. But we have effected arrangements, we think, which will prevent such delays in the future. With our present subscription list, added to the new subscriptions daily received, together with new arrangements we are perfecting as regards assistance in our editorial work and business management, we think we can confidently promise a better journal than we have heretofore usually published, and a more prompt issue during the early part of each month. Besides, our correspondence, will be more promptly attended to.

In view of our present prosperous condition as a journal, and of what we believe to be our prospects, we trust that each one of our subscribers at this time will lend us a helping hand by sending in some new subscription.

And now we have finished volume VII. Many subscription bills go out with this issue. We beg that each party to whom a bill for subscription is now sent will promptly remit the amount of his bill, so that we may know upon whom to rely as subscribers for the forthcoming annual volume.

Daily Edition of Virginia Medical Monthly during Session of the American Medical Association.—The encouraging promises and subscriptions thus far received from all sections, lead us to announce definitely that a *daily* edition of this journal will be issued, giving reports of the four days proceedings of the Association, during its session in this city, May 3d–6th, 1881. This enterprise is undertaken, of course, as an *extra*; and the subscription price for the four days will be *forty cents*, which amount may be remitted in postage stamps of a denomination not exceeding *three cents stamps* if cash cannot be handed in. Sometimes parties send us stamps of fifteen and thirty cents, and even of a higher denomination. Our need for such stamps is extremely rare, and there is no way of disposing of them. *Do not send us stamps of a higher denomination than three cents.* Wherever several parties in the same community, or where several send their money through the same party, of course *greenbacks* are to be preferred.

We propose to conduct the *Daily Extra* on pretty much the same plan as that pursued by the *Medical Record*, of New

York, last year, when the Association met in that city. Our reports will be printed with small pica type—the same as that used in this notice—in double columns, each column of the width of this page, and, in length, about ten inches. The number of pages will be limited only by the amount of material we may have to publish from day to day. Competent reporters are being engaged for each Section, as well as for the general sessions, and it is hoped that authors of papers and those who may enter into discussions will lend their aid to the several reporters, in order that no mistakes may occur in the reports.

Some parties have subscribed in advance for as many as fifty copies of the *Daily Extra*; others for thirty copies; some for twenty-five, twenty, fifteen, ten, five, down to one. We trust every party desiring any number of copies more than one or two will send in their orders in advance of the Session, as, without knowing what may be the actual want, we will not be able to direct what number of copies to print.

The Alumni Association, School of Medicine, University of Maryland, met yesterday at the medical college, Greene and Lombard streets, Dr. George W. Miltenberg presiding, and Dr. Eugene F. Cordell, Secretary. The total number of names added to the roll of membership was ninety-nine. The report of the Secretary showed that ten members of the association had died during the past year. The report of the Treasurer showed the amount on hand to be \$108. The subject of endowing the School of Medicine was discussed at length, and a committee was appointed to take charge of the matter, as follows: Drs. H. P. C. Wilson, John R. Uhler and Eugene F. Cordell. The committee on awarding a prize to best thesis reported, through Prof. Alan P. Smith, Chairman, that, as only one thesis had been received, the prize would not be awarded. An election for officers resulted as follows: President, Dr. J. R. Ward, of Govanstown, Md.; Vice-Presidents, Drs. Jas. A. Steuart, Jas. T. Smith and Judson Gilman, of Baltimore; Recording Secretary, Dr. Eugene F. Cordell; Assistant, Dr. Wm. Lee; Corresponding Secretary, Dr. B. B. Browne; Treasurer, Dr. G. Lane Taneyhill; Executive Committee, Drs. D. I. McKew, I. E. Atkinson, E. F. Milholland, Jud. R. Uhler and Alan P. Smith.—“*Sun*,” March 5th, 1881.

The following resolution was adopted at the annual meeting of the Alumni Association of the School of Medicine, University of Maryland, held March 4th, 1881:

Resolved, That a committee of three be appointed by the president, to urge upon the Alumni and other friends of this school, the importance of providing an endowment, and to secure such contributions and bequests, either towards a general endowment fund, or to special chairs and departments, as may be in their power.

American Medical Association.—The following is the regular annual circular of the Secretary, Dr. Wm. B. Atkinson, of Philadelphia, Pa.:

The Thirty-second Annual Session will be held in Richmond, Va., on Tuesday, Wednesday, Thursday and Friday, May 3, 4, 5, 6, 1881, commencing on Tuesday at 11 A. M.

"The delegates shall receive their appointment from permanently organized State Medical Societies, and such County and District Medical Societies as are recognized by *representation in their respective State Societies*, and from the Medical Department of the Army and Navy, and the Marine Hospital Service of the United States."

"Each State, County and District Medical Society entitled to representation shall have the privilege of sending to the Association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number: *Provided*, however, that the number of delegates for any particular State, territory, county, city or town shall not exceed the ratio of one in ten of the resident physicians who may have signed the Code of Ethics of the Association."

Secretaries of Medical Societies as above designated are earnestly requested to forward, *at once*, lists of their delegates.

"The Chairmen of the several Sections shall prepare and read in the general sessions of the Association, papers on the advances and discoveries of the past year in the branches of science included in their respective Sections."—*By Laws, Art. II, Sec. 4.*

Practice of Medicine, Materia Medica and Physiology.—Dr. Wm. Pepper, Philadelphia, Pa., Chairman; Dr. T. A. Ashby, Baltimore, Md., Secretary.

Obstetrics and Diseases of Women and Children.—Dr. Jas. R. Chadwick, Boston, Mass., Chairman; Dr. Jos. Taber Johnson, Washington, D. C., Secretary.

Surgery and Anatomy.—Dr. Hunter McGuire, Richmond, Va.; Dr. Duncan Eve, Nashville, Tennessee, Secretary.

State Medicine.—Dr. Jas. T. Reeve, Appleton, Wis., Chairman; Dr. R. G. Jennings, Little Rock, Ark., Secretary.

Ophthalmology, Otology and Laryngology.—Dr. Dudley S. Reynolds, Louisville, Ky., Chairman; Dr. Swan M. Burnett Washington, D. C., Secretary.

Diseases of Children.—Dr. A. Jacobi, New York, Chairman; Dr. T. M. Rotch, Boston, Mass., Secretary.

A member desiring to read a paper before any Section should forward the paper, or its title and length (not to exceed twenty minutes in reading), to the Chairman of the Committee of Arrangements at least one month before the meeting.—*By Laws.*

Committee of Arrangements.—Dr. F. D. Cunningham, Richmond, Va., Chairman.

Amendment to the By Laws offered by Dr. J. M. Keller, Ark.: In the election of officers and the appointment of committees by this Association and its President, they shall be confined to members and delegates present at the meeting, except in the Committees of Arrangements, Climatology and Credentials.

The Southwest Virginia Medical Society have made a somewhat new departure, which is worthy of imitation by other Societies. "Indigent persons, suffering from disease, will be allowed to come before the Society for examination, be prescribed for, and operated upon when an operation is necessary, *free of charge.*" This makes the Society practically a *clinical* Society—a great desideratum in our towns and county societies. If the doctors connected with the Society will properly urge this feature upon their patrons, it will be a means of doing much good to the indigent poor of the section, while the one in charge of such a case will have the benefit of the most capable consultation within reach. Each case brought before the Society should be a subject of general discussion before the prescription is written by the doctor in charge. Records of each case thus treated should be filed, and a report of it should be made to the Society when the patient is finally done with. Another benefit by this course, outside of the clinical advantages to the members of the Society itself, is this: It will show to the public at large that medical societies have other business to engage them than discuss tariff fees and the Code of Ethics. We commend the plan to other Societies.

In addition, "Fellows are requested to make written reports on all diseases prevailing in their section, and upon all important cases and surgical operations" which may come

under their care or within their observation. This suggestion, if properly carried out, will redound to the good of each member of the Society.

This Southwest Virginia Medical Society represents almost all the leading medical talent of the section of the State represented by the title. The profession of this section have been ever active, and always the most numerous attendants upon the sessions of the State Society, and in other ways manifest more interest in the larger organization than any one other part of the State. May their zeal never lessen, and may their future contributions to medical literature continue to be as useful as they have been for years past. Dr. John S. Apperson, of Town House, Smyth Co., Va., is Secretary.

Typographical Corrections.—On page 249 of the *Transactions of the Medical Society of Virginia*, 1880, bound with the January No., 1881, of this journal, Dr. Alban S. Payne, of Atlanta, Ga., is incorrectly reported as recommending “Epsom salts to relieve the itching.” Dr. Payne should have been reported as having said that, “Whilst he agrees with Dr. McGuire, that the most certain cure for fissure of the anus is to cut through the fibres of the sphincter ani, *but only those involved in the fissure*, still we should not ignore the fact that many patients, under such circumstances, could not be induced to submit to the knife—however trivial the operation might be. In such cases, he was in the habit of using suppositories of iodoform and cocoa butter—one drachm of the former to one ounce of the latter, made into six or eight suppositories. These are to be applied to the fissure by introduction per rectum. To regulate the bowels, Carlsbad salts [*not* Epsom salts], in frequent, small doses, in solution, to be taken through the day, just as would be done with the water, if sojourning at the celebrated German springs. He very recently effected a cure, by these means, of a prominent citizen of Washington city; and he would suggest that this course of treatment be suggested to Dr. Jones, provided he does not consent to submit to the operation recommended by his distinguished friend, Dr. Hunter McGuire.”

Bellevue Hospital Medical College, of New York city, has just issued a circular to the effect that “the experience of the Session of 1880–1 has led the Faculty reluctantly to the conclusion, that to persist in the requirement of attendance during three courses will be to “hazard the interests of the

College." Hence, beginning with the Session 1881-2, "attendance during a third session will be optional and not obligatory." The profession at large does not seem prepared to sustain the compulsory three-term session. But, in returning to the original requirements for graduation (three years' privilege, and attendance upon two full courses of lectures, the last being at Bellevue Hospital Medical College), all the new additions to the curriculum will be retained. "It is not proposed to recede in the least from these."

Since so many colleges have receded from the general effort of a year or two ago to compel three years of college tuition, we think the Faculty of Bellevue College have acted with proper self-interest and prudence in this matter. We have long been believers that parties should be allowed to graduate and practise whenever their attainments were sufficient to justify them in receiving a diploma. But we found ourselves so greatly in the minority a year or two ago in advocating the standard of merit *versus* the time spent in attending lectures, that we surrendered our views for the time being, and determined to give assistance to a movement which seemed then to be popular, in order that there should be no cause on our part to prevent a general advance. We again predict, that sooner or later, the "University plan," as generally understood, will finally be adopted by our leading Colleges.

We invite attention to the revised advertisement of the Bellevue Hospital Medical College on the fourth cover page of this issue.

Southern Medical College Hospital.—The trustees of this College, in Atlanta, Ga., are an energetic and progressive set. They have purchased an eligible lot and building of good size, to which building additions are to be made, so as to transform it into a suitable hospital, which will be ready for patients by the opening of the coming fall course of lectures in the College. Atlanta now has, we believe, two hospitals. And yet Richmond, with 20,000 more of population than Atlanta, cannot yet claim a single general hospital! True, there is a hospital ward attached to the Richmond City Almshouse; another to the State Penitentiary in this city, and there is the "Retreat for the Sick," intended specially for pay patients. It is a drawback to our city that it has no separate and distinct *city hospital*. We know of no city in the country of equal population that has not a general city hospital.

The Bulletins of the Public Health, which were issued weekly on sheets of paper by the Supervising-Surgeon-General of the United States Marine Hospital Service, from July 13, 1878, to May 24, 1879, compiled from reports received during the periods in which the recent epidemics of the plague in Russia, and yellow fever in the United States prevailed, have been collected in one volume of 133 octavo pages for permanent record. Dr. John B. Hamilton, the Supervising-Surgeon-General of the United States Marine Hospital Service, at Washington, D. C., deserves the special thanks of the profession at large for this ever-useful publication to medical statistical literature.

The Mississippi Valley Medical Monthly is the title of a new journal, published in Memphis, Tenn., which promises to be a first class medical journal. The January number, 1881, is received, and contains some excellent practical, original contributions and extracts. It is to be a 48-page journal. Subscription, \$1 per annum; 25 cents for single copy. Drs. J. J. Jones and Julius Wise are editors and proprietors. We cheerfully place it upon our exchange list, and most cordially wish it the abundant success which its merits warrant it to enjoy.

Powell's Combined Beef, Cod Liver Oil and Pepsin, advertised on the colored leaves after reading matter, is a really valuable preparation as a food and tonic, and is prepared by a gentleman who has the confidence of those who know him. We have used the preparation in cases of weakened digestive powers, in the early stages of convalescence from prostrating diseases, and it has met our expectations in every instance when it was reasonable to expect any food-tonic to be of service. The very nature of the combination, as stated in its name, will show its range of usefulness. It is better than beef teas or soups, or milk or milk toddies. Its true rank is alongside of Valentine's Meat Juice. The beef, cod-liver oil and pepsin are held in suspension by a palatable, harmless emulsion, which prevents the usual complaints regarding many other medicines, that they "taste bad." Each dose of a tablespoonful contains the equivalent of a half-ounce of beef and five grains of pepsin. Give it a trial.

Seabury & Johnson.—It was with pleasure that we received a visit from Dr. B. Franklin, of New York, who is at present visiting the physicians of the South for the purpose of calling their attention to the pharmacopœia and surgical plas-

ters and antiseptic dressings, for which this house is so justly noted. These beautiful and standard preparations are now in general use throughout the country, and well deserve the notice of the profession.

The Original Chatterbox is a very attractive illustrated journal—a specimen copy of which will be sent to any boy or girl who sends his or her postoffice address. Price, 10 cents a copy; published monthly in Boston, Mass. Messrs. Estes & Lauriat, publishers.

Queries and Answers.

Extent of Leprosy in United States.—At a meeting of the New York Academy of Medicine, held January 20, 1881, the following resolution was adopted :

Resolved, That a committee be appointed by the President to investigate the extent to which leprosy prevails in the United States.

The President appointed as such committee, Drs. H. G. Piffard, F. R. Sturgis, and G. H. Fox.

The committee are desirous of ascertaining the actual number of lepers in this country at the present time, and to that end respectfully request any physician who may know of the existence of a case in his neighborhood to communicate the fact to the chairman of the committee, at No. 10 west 35th street, New York.

Advances in Obstetrics.—Dr. S. T. Davis, of Lancaster, Pa., having been appointed to read the Address in Obstetrics before the Pennsylvania State Medical Society during the second week in May, 1881, requests every practitioner to answer the following questions by letter, to be sent to him by April 10th :

“Have you discovered during the last year anything pertaining to the obstetric art which you regard as new?”

“Have you had any remarkable recovery of a patient in which treatment—either mechanical or medicinal—was entitled to credit?”

It is to be hoped that every practitioner who can assist reporters on advances, will cordially lend their aid, and thereby benefit the profession generally.

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(APRIL, 1880-MARCH, 1881, inclusive.)

EXPLANATIONS.—This Index is divided into two parts: first, **Index of Contributors**, which also gives the titles of articles, etc.; and secondly, the **Index of Subjects**.

The letter T preceding some of the figures refers to the paging of the **Transactions of the Medical Society of Virginia** (Part II of Volume III.) This second part of Volume III of the **Transactions** was issued with the January number, 1881. But in binding this Volume VII of the **Medical Monthly**, the **Transactions** should be separated from the January number, 1881, of the journal, and be bound after the March number, 1881.

Notices of books, journals, deaths, personals, and proceedings of societies, etc., are indexed in the **Index of Subjects** under the respective words **Book Notices**, **Journalistic**, **Obituary Record**, **Personals**, and **Society and Health Board Proceedings**.

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TRANSACTIONS

OF THE

ELEVENTH ANNUAL SESSION

OF THE

Medical Society of Virginia,

HELD IN

DANVILLE,

October 19th, 20th and 21st, 1880.

PART II—CONTINUING VOLUME III.

Resolved, That there shall be affixed to the title page of each edition of the Transactions a declaration that the Medical Society, in publishing papers, does not thereby endorse the views of authors; such endorsement shall only be by vote to be found in the Minutes of the session.—Page 15, Trans. 4th Sess.

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NOTE BY THE RECORDING SECRETARY.

The present eleventh annual publication of *Transactions* constitutes Part II of Volume III. When a sufficient number of annual Parts will have been published to make a book of convenient size—say 500 or 600 pages—then these successive annual Parts will form Volume III, and will be properly indexed. The paging of these Parts of Volume III will be continuous throughout.

ADDRESS BY THE PRESIDENT,

HENRY LATHAM, M. D., Lynchburg, Va.

Fellows of the Medical Society of Virginia :

It is a source of unfeigned pleasure that I meet you to-day, on the eleventh anniversary of the Medical Society of Virginia.

When I, and a few of you who still survive, remember that little squad of medical men who assembled in the city of Richmond in 1870 to effect this organization, with hearts and minds filled with doubts and fears as to its success, and almost prepared for the deep mortification of a failure, it must be an occasion of earnest congratulation that from that mere embryo of an organization has grown to manhood one of the most successful medical societies in the Union—commanding the notice and patronage of some of the most eminent men in our own or any other country. It is but natural that I should feel some pride in being one of its originators ; and here I will take occasion to express to those distinguished gentlemen* from other States our grateful recollections, in that they left their homes and their business, at no small expense, to lay their contributions upon the altar of medical science. Though not to the manor-born, yet, in a medical sense, they are the adopted sons of Virginia, and as such we shall claim and cherish them.

I have said that this is the eleventh anniversary of our organization. A very natural inquiry arises here: Why is it that the oldest State in the Union should not have had a State Medical Society until 1870, when some of the younger States can number such organizations by the half, and some by nearly a full century? This is not very creditable to our State, especially in this age of unprecedented progress in medical and other sciences.

It cannot be that her medical men are less proud than others of their State's past history—her renown, and, I would say, her pre-eminent capacity for the production of great men ; and yet there seems to have been the profoundest indifference, nay, apathy, in this respect, as to the means so essential to her progress in medical science and its applications.

I say that it is not very creditable to a State otherwise distinguished for

*Drs. Sims, Sayre, Battey, Wilson and others.

her learning and for her great men, that she should not be equally distinguished in zealous efforts to advance a science, second to none in its importance to human happiness, and, I broadly say, to national prosperity itself. I say this because I believe that medical associations of this character contribute more to medical progress than all other means combined.

I am not ignorant that there was, many years ago, an association of this character in our State, but it had only a short existence. From what causes it succumbed, I am unable to say; but I fear the failure resulted from that usually fatal malady of internal strife, contention and jealousy, which so often poisons the sources of our social and professional harmony.

In this resuscitation, then, of the old Society, if so I may call it, may I trust that we will watch with a jealous care that no disturbing elements shall enter into its deliberations, that in all new matter introduced for your consideration, and in all discussions, you will be guided by what we may regard as the very best interests of the profession; for harmony is essential to the prosperity of all institutions, and especially this of ours.

I shall call your attention briefly to several topics which especially concern the profession of our State. Though these topics possess the same interest in every State, I wish to deal with them as our own grievances, and not in their broader aspects.

The first point to which I wish to direct your attention is the fact that there is no direct legal recognition of such a class or body of men as the Medical Profession of Virginia. You are only known to the State as a tax-paying body, and in that respect stand upon the same plane as the keeper of a saloon or the keeper of a ten-pin alley, and are ignominiously contrasted with your sister profession of the law. But so it is.

The Act authorizing a lawyer to practise his profession in Virginia requires that he shall be examined as to his qualifications by two judges, and that he shall be a resident of the State for at least one year. Now, why this distinction between these two professions, based upon their presumed relative importance, I cannot conceive; nor do I believe that an intelligent answer can be given by any one. It is a continuation of a prejudice which has existed time out of mind against the profession, as to any legislation which may even indirectly promote its interests. Every effort in this behalf, however obviously promotive of the public welfare, is viewed with suspicion as to its bearing, as if it were secretly invested with some insidious private interest or class legislation—a *suspicion* arising only in the minds of native ignorance or sinister prejudice. We have an example of this tendency in the recent Acts of our Legislature appointing a Board of Health. After frequent appeals from the profession, this Board was granted, but only upon the condition that the State should be put to no expense in its support. Thus we stand at this day, and, we may add, so

stands the Board of Health of the United States, when we take into consideration the insignificance of the sum appropriated to accomplish so great a work as they are expected to perform. I am pleased, however, to say that the public mind is becoming interested in this behalf, notwithstanding the source from which, in the main, it originated, and that ere long, doubtless, our legislators will see fit to take a more liberal view of the motives which actuated the profession in bringing the subject so persistently before their notice.

The next grievance to which I shall call your attention, as an evidence of the practical ignoring of the rights of the medical profession by the Legislature, is the Act providing compensation for medical attendance for State prisoners. The Act reads thus :

“A court may appoint a physician to attend prisoners in its jail, and make him a reasonable allowance, *not exceeding seventy five cents a day for each day he attends a patient*. When he attends more than one patient a day, there may be allowed fifty cents a day for each additional patient.”

But this is not the climax of legislative injustice and effrontery. I read further :

“A court *may* make an allowance, not to exceed the sum of *twenty five dollars*, as compensation to *any physician*, or analytical chemist, for making an analysis to discover poison in any criminal case.”

This is a sad commentary upon the appreciation of the medical profession by a Virginia Legislature, which should be composed of its most enlightened citizens. May the gods forbid that they should be regarded as the exemplars of the Virginia people !

Seventy five cents a day allowed to an educated medical gentleman for a visit in a filthy, verminous jail, and even that qualified by the words “*may*,” but must not “*exceed*,” implying that this sum may be reduced ! Humanity may demand it, does demand it ; but so far as the law is in question, it is simply a denial of medical attention to those imprisoned wretches, who are thus punished before conviction !

But in cases of criminal poisoning, the law stands upon the statute book as a nullity, and there it will ever stand as a record of ineffable ignorance of a science, the elements of which should constitute a part, at least, of the law-maker’s education. Enough should have known that an expert in analytical chemistry must needs be a man of not only a liberal education, but specially educated in this department of scientific experiment and investigation. Upon the subject of coroners, the laws of our State are criminally inadequate to the administration of justice. The importance of this subject seems never to have entered the medical or legal mind.

Distinguished authority upon this subject says : “Our courts have annually from twenty-five hundred to treble this number of criminal trials,

necessitating medical testimony, and of these a large part of it originate from coroner's inquests."

Whatever the number may be, it would indicate inadequately the number of citizens whose welfare is involved, and the extent to which society is interested in the efficient application of medical knowledge to the administration of legal justice.

Time would not permit me to go elaborately into this subject, though its importance might profitably engage your attention for the period which I have been allotted for this address. I will quote another startling statement by the same author :

"The following are facts as to New Orleans for the year 1875 : The total number of coroner's views and inquests was 1026 ; of these were 268 inquests, and out of these grew 47 trials. Giving New Orleans 210,000, and the United States 40,000,000 population, the New Orleans statistics would indicate for the United States annually 8,952 medico-legal criminal trials, growing out of 51,047 medico-legal autopsies or coroner's inquests."

I do not propose to make any comparison of a Virginia population with that of New Orleans, as to the frequency of coroner's inquests ; far from it ; nor am I aware of the qualifications of the coroner for filling this important office in the State of Louisiana. When we consider the consequences which depend upon and flow out of these investigations, it is simply astonishing that such great interests should be confided to the hands of men totally incompetent by special qualifications to perform the duties thereunto pertaining. And yet such is the fact in regard to the law in Virginia. This duty is confided in most cases to laymen who, in consequence, have no sort of qualification for the duties they are required and expected to perform.

I have personally known cases of grave suspicion existing as to the mode of death, while the inquest was held without any medical testimony being regarded as necessary—the *lay* coroner being judge as to any conditions which require investigation at the hands of the physician.

Sound public policy demands that a coroner should be one having special qualifications for this office. While all physicians are not experts, and the most of us incapable of making critical *post mortem* examinations, yet it being always "the best attainable evidence" that the law requires, the service should never be entrusted to the hands of a layman ; and as we are or pretend to be the conservators of public justice, as well as of the public health, I conceive it to be our bounden duty to call attention to this defect in our laws.

I know of no remedy which will cure this abuse except it be a better education of the profession in the department of medical jurisprudence. The average medical man in our State (and no doubt the rule holds good in

other States) is not educated up to the standard of such requirements as are essential to one who occupies the position of the expert.

It certainly is not in the power of a legislative body to fill the office with competent men unless the medical colleges furnish the material. It is gratifying to know that medical jurisprudence is now attracting more attention in this country than heretofore, and we have every reason to believe that chairs of medical jurisprudence will soon be established in all first-class medical institutions. I am firmly of the opinion that upon the medical colleges devolves this grave responsibility, and upon them should fall much of the reproach cast upon the profession, because they give passports to public confidence in the diplomas granted to unworthy and unfit men. There is no position in which a medical man can be placed which so severely tests his professional ability, and which so reflects either credit or discredit upon his studies, as the witness stand. I verily believe that from this source has sprung much of the opprobrium of the profession; for here is almost the only public exhibition of the difference between scientific men and the ignorant pretender. Many of us have seen such flippancy in the public eliciting of medical testimony (to the disgust and shame of the well educated physician) that the witness too often becomes an advocate as well as a witness.

It is evident, then, that to complete the work of justice in criminal trials, the thorough education of the law student is as essential as that of the medical student; and I am persuaded that if this branch of jurisprudence were taught in the law schools, there would be less of the badgering of physicians on the witness stand than is ordinarily seen. Often questions put to the medical witness, ill-defined by the lawyer in consequence of his own ignorance of medical science, but hinder the physician in the attempt to clear up his (the lawyer's) muddy ideas upon the special subject of medical jurisprudence. But this is not always the case. There are many eminent lawyers well skilled in this department, who are not only experts in medico-legal science, but very expert in making ridiculous a medical witness, unless the latter is equally expert in parrying his blows. Lawyers of this degree have the peculiar characteristic which is known as an anomaly in human anatomy, and perhaps in piscatology; I allude to the cuttle-fish. You know that it has a kind of "gland called the *ink bag*, situated near the liver, from which, when pursued, it throws out a brownish black liquor that darkens the water, enabling it to make it escape observation." This bag is located in some of these astute attorneys, and they so muddy the stream in which the question is involved, that one not versed in medical jurisprudence, and especially the young medical enthusiast, will easily be entrapped into inconsistencies and contradictions. I say this clothing of questions in obscure language will never deceive the well educated medical jurist. For

the honor of the profession, and our own professional character, let us unburden ourselves of this imputation so often laid upon the body of the profession, by making this department a serious specialty. And then when the physician is called upon to play his part as an expert on these public occasions, he will not be hooted from it by shrewd lawyers, and jeered by the people.

The greatest of all the trials of a medical witness is when called on to testify in cases of insanity. To the competent it will be a triumph to himself and an honor to the profession; for he will have vindicated a noble science. To the incompetent, it will prove a disgrace to himself and a reproach to medicine.

The profession recognizes the absurdity of the popular and legal presumption, that every practitioner is a medical expert; and yet, when the medical witness is brought to confusion by cross-examination, the reproach and odium attach to the entire medical profession, and the line between the charlatan and the proficient becomes a very narrow one. The public having no means of determining medical questions, credulity is most often on the side of brazen-faced assertion, effrontery and assurance. Here, again, we call upon the medical men to stand, and ask the colleges to place over their doors, "Let no one pass out here with a letter of credit unmerited or unworthily obtained; nor any who cannot stand the severe tests he may be called upon to undergo in the rugged paths of medicine."

Every physician, no matter how skillful he may be in the treatment of diseases, cannot be expected to be expert in analytical chemistry or mental pathology; but he should be at least so grounded in the various departments of his profession as not to disgrace the diploma which he holds.

Elwell says: "A man, whether learned or not, whether in court or out of court, will talk clearly upon any subject he well understands, whether it is scientific or otherwise: but unless it is clear in his own mind, his account of it will be confused and unsatisfactory. No amount of windy pretension nor technical verbosity will help him out of the ridiculous position into which he has voluntarily and imprudently thrown himself by pretending to do what he is wholly incompetent to accomplish. It is this assumption of disagreeable assurance, empty pretension, gassy reputation, wise looks and big words, that so often disgusts the court and counsel, and brings disgrace upon those who are really high-minded, learned and candid;" which is, I may add, reflected upon the whole profession.

The profession is again undervalued in the public estimate of the services of a physician when he is called upon by the court of inquiry to give testimony in cases of insanity. It is true there is no specific charge by Act of Assembly; indeed, there is *no charge* even alluded to. The court is required to summon the physician in attendance, if the patient have any. As

the State of Virginia has not made it requisite to have any qualifications for the practice of medicine, then the negro, the sorcerer, the enchanter, or the interpreter of dreams is your peer; and, possessing a license, and being the attending physician, he may, of course, be summoned to give expert testimony in these cases. Fortunately, his testimony, and others of equal incompetency, will be reviewed and given its proper weight by the Superintendents of the Asylums, who are accomplished men in this department. But I made reference to this subject more to show the injustice done to the profession by the State Auditor, who ordinarily makes an allowance of *five dollars* for hours of labor in many cases. Now, when we daily bear this injustice of the State and the ingratitude of the people to physicians, it is no wonder that special *piety* does not constitute one of the characteristics of the doctor. There are few Sydenhams, Fothergills and Rushes in this money-loving world; and unless Tanner has determined affirmatively the question that physicians can live without food, we will still be entitled to a just reward for our labor. The luxury of doing good does not feed hungry mouths.

In striking contrast with the almost nominal compensation allowed to physicians for medical service to the State, the Act of Assembly for 1878 says: "The Attorney General may contract to pay additional *counsel* not exceeding *one thousand dollars*, which shall cover two years' service."

Such reforms as I have spoken of are for the public good. The public should be willing to pay reasonable fees for such services. They should be paid the same as legal fees are paid, for it would seem to your speaker that the services of a physician, either of a private or public nature, should be compensated equally with those of an attorney. The services of the former are quite as necessary—in many cases, indeed, more indispensably necessary, than the services of the latter. "During the current six months, bills for legal fees amounting to between \$50,000 and \$100,000, have been sent in by lawyers, all of which will no doubt be paid from the city treasury. These bills, too, are mostly for services which are incidental and extra, and not otherwise provided for by law." Such is the language of a writer in the *New York Medical Record*, of September, having reference to the city of New York; and the statement is equally applicable to our State, so far as the principle is in question of justice to the medical profession. I am personally aware of a case in which a law fee of \$5,000 was awarded to a lawyer for writing a will. A fee of this magnitude would not have been allowed for medical attendance upon the lawyer's family for a full quarter of a century; yet, the court thought it a reasonable charge. But a Legislature, made up mostly of lawyers, thinks seventy-five cents a day for a visit to prisons, and twenty-five dollars for a chemical analysis for suspected poison

requiring days, and, perhaps, weeks of labor, a very liberal fee for one of the disciples of Æsculapius.

But the list of our grievances is not yet complete. In regard to *post mortem* examinations ordered by the coroner, we are again left to the mercy of his opinion as to the value of our services. "A reasonable compensation" is the law's language. There can be no objection to this practically, if it were all. In some such examinations, very little time is consumed, and but little danger incurred; in others, however, much time is consumed, and they are made at no small peril to our own lives. The compensation, therefore, varies materially. Now, a layman has no conception of these risks and responsibilities. Their disgusting and oftentimes dangerous character is unknown to him, and a reasonable demand would appear to him a most exorbitant exaction. But if, perchance, a reasonable fee be allowed, it still has to run the gauntlet of the court, and finally of the Auditor, who too often undertakes to adjust our fees according to his own views of services to the State.

But such service to the State does not end here. By these *post mortem* examinations, we voluntarily qualify ourselves to become witnesses in criminal cases, which may and often do claim our attendance upon courts for weeks, perhaps months, to the great prejudice of our business; to be badgered and worried by jail attorneys, who, for the sake of a fee, would deride your profession and ridicule your competency. The license of these gentlemen is very broad in their examination of witnesses, and unjustifiably so—especially of medical witnesses. Such being the fact, the physicians of the city in which I practise will not perform service of this character unless the coroner will become personally responsible for a reasonable compensation. No law exists to compel you to qualify yourself to become a witness. "You may carry a horse to water, but you cannot make him drink," and I trust that this may be the rule of your conduct until medical men shall be recognized as an essential element in the administration of criminal law, as far as medical issues are involved, and equally important to the good order and general welfare of the people as gentlemen of the bar.

I trust you will pardon me, gentlemen, for thus dwelling upon these subjects of State neglect and injustice, but I wish to *intensify* your minds and feelings upon this subject, that we who constitute so large, influential and indispensable a part of our social organization, should be no longer ignored by the State, and that we should have some conception of the dignity of our calling and our claim for professional services. This is only to be done by the concentrated action of the whole profession. We must let our law-makers know that by education, character and position, we are entitled to something more than the day-laborer, and that we claim a co-equality with

the profession of the law, which is much less essential to "life, liberty and the pursuit of happiness" than is ours.

That eminent physician and lawyer, Dr. Elwell, says, "The highest interest of individuals, as well as whole families, and even the safety of society itself, depends constantly and necessarily upon medical testimony. Not only questions of property and life, but those which are dearer and of more value than property—those of character and reputation—are in the hands of the medical witness."

And now, gentlemen, having dwelt upon some of the grievances of the profession in our State—I fear too long for our limited time, yet too short for so important a subject, I proceed to make a few remarks upon the subject of our educational system. I do not propose to discuss at length this important subject. It is not my province to do so on this occasion, even if I were competent, which I unaffectedly say I am not. I mean to express to you only the satisfaction I have in announcing the fact that the two medical colleges of Virginia have resolved to adopt the system of a three years' course of medical study—thus keeping abreast of some of the first-class medical schools of the country. This will form a new era in Virginia in the medical profession. Our grand old University, the Harvard of the South, already stands pre-eminent as a medical school, and her diplomas have never been questioned by any diploma-granting power, no matter when or where presented. Her comparatively young sister, the Medical College of Virginia, at Richmond, possesses rare qualifications for the education of her students. Such being the facts, there is really no need for a Virginia medical student to seek other schools beyond his own State. It is true there are greater advantages to be obtained in hospitals, and there is large instruction and experience in some of the larger institutions of the North; but for well grounding in the theory of medicine, the Northern schools possess no superiority over ours. The *real education* of the medical graduate commences *after* he has passed the college walls.

As to any common standard of medical education in this country, I presume that we may not expect it in the near future. Our system of government is unfavorable to such anticipation. The European system is much more conducive to this end than ours. In Germany and France, medical education is under control of Government and is supported by Government, central in its character, and it is, or ought to be, uncompromising and free from all partiality in its examinations, and as free from unworthy influence, as human nature will permit. Notwithstanding this, many successful contrivances are resorted to, there as here, to pass undeservedly the ordeal. In Great Britain equal precautionary measures are taken to prevent these impostors, and to elevate to the highest point the standard of medical education by Act of Parliament. The General Medical Council has control of

the whole subject, by means of the control it exercises over the Colleges as licensing bodies.

The usual term allotted to professional education in these several countries is from four to six years, and even this is thought by some of the medical teachers to be too limited to study efficiently all the branches of medical science.

Now, in the United States, we have thirty-eight distinct independent governments, and as many distinct independent colleges and voluntary associations. Each has its own standard of education, varying from the highest to the lowest—interspersed occasionally by the bogus. Instead then of having an honorable rivalry among these colleges, as to which can teach best, we have in view the low and contemptible end as to which can count the greater number of students.

It is with these colleges, as it is in some other colleges; every college is for itself in this race, and “the devil takes the hindmost,” as he ought to do. Nothing but the high reputation of a college will eventually win, and “the fittest will still survive.”

To this end let us look and work, relying upon an increasing intelligence of the people to discriminate between the educated physician and the ignorant pretender, though the latter *may* have his diploma conspicuously displayed on the walls of his office.

One of the first steps to this end is to obtain some legislation regulating the practice of medicine in the State. It is true that now and then some intermittent efforts have been made in this behalf, but our appeals have thus far been ineffectual. We have still to bear the opprobrium, among our sisters, of constituting a profession unrecognized by the laws of the State. I trust that by a persistent and continuous effort, success will eventually crown our aim.

Many of the States have made laws upon this subject, which have proved more or less defective. Astute attorneys have always been enabled to find some way of escape for the offender. The law of New York upon this abuse is perhaps the best that has yet been found. It went into effect on the first instant, and promises the best results.

The Act requires that each and every one who proposes to practise physic in the State of New York shall, on or before the first of October, 1880, register in the clerk's office of the county in which he resides, his name and birth place, together with his authority for practising physic and surgery; and for a failure to do so will be fined the sum of fifty dollars. An oath as to the time and place of graduation will be required if no diploma be presented. Thus we see that an important step is taken to protect the people from the invasion of quacks of every description.

But in California, that once God-forsaken country, we find an advance

even over New York in expelling quackery from the State. In California, as in New York, every person proposing to practise medicine will be required to have his name recorded in the office of the clerk of the county in which he resides.

The Act of the California Legislature appoints seven physicians, who shall be graduates of schools of good standing, who shall form a Board of Examiners. This Board shall be empowered to issue certificates to all who furnish satisfactory proof of having received diplomas or licenses from legally chartered medical institutions in good standing, and this Board shall furnish the county clerks of the several counties a list of all persons receiving certificates; which record shall be open to public inspection. Each class of physicians—regular, homœopathic and eclectic—has a special Board of Examiners; but the law requires that a rejected candidate by either shall not be re-examined by any other class under twelve months. But what I referred to as an advance upon New York legislation is the clause in the Act which empowers this Board to expel from the profession any member who shall be guilty of unprofessional conduct. Why, gentlemen, if this were the law of Virginia, there are among us some who would have to seek some other employment, or go to some other State—but, mind you, *not* to California!

And this subject necessitates an associated idea of what constitutes unprofessional conduct. Such conduct may be, as I understand it, either organic or statutory. The one is universal and applies to every medical practitioner in all civilized countries, and, as before stated, is embraced in the national code. It is founded upon the code of Percival in England, and the Virginia code is a copy of the national code. There may be circumstances, or conditions, local in their character, which may regulate local legislation, and the violation of which would be as unprofessional as any infraction of the organic law. But as long as the vital principles of the national code are kept faithfully in view, we cannot materially err in deciding what is contrary to professional obligations.

I regard the national code as the Bible of medical conduct; and if one should tell me that he had never heard of it, I hope I shall give no offence by saying he would be a medical *heathen*. If he had ever seen and read it and did not recognize its sound and conservative doctrines, why, then, I should say that he was a medical *infidel*. I hope there are no Bob Ingersolls in regard to this subject to hear me to-day. (But if any one has seen it and read it, and professes a faith in it, and yet violate its teachings, then of course he is a medical hypocrite—and no hypocrite ever gets to Heaven; and you know what becomes of such.)

But aside from all written codes, there is the code natural, which is written in the heart and mind of every gentleman, whether educated or not;

and this, after all, is the surest anchor of rectitude in etiquette and in ethics.

The code, then, is the combined wisdom of the profession. It is not the code of a section, either the North or the "solid South." It is the equity sense of an abstract principle—*Justice*—as applied to men in every class of society, and an exemplification of the Bible doctrine and golden rule of "doing unto others as you would have them do unto you."

The fact is, the code is the friend—the *neutral* friend—the peace-maker and arbiter, when strifes arise between us; and when we may honorably differ, it will interpose and make us friends again. In this character, our State Society is ever ready to hear, interpret and decide all controversies referred to it according to the principles laid down in this code. But the code is a rod to the trickster and to him whose motto is "get practice; honestly if I can; but any how—get practice."

No purer system of morals was ever written: none ever will be; and he will be a happier man who obeys its edicts, for no trickster can. If carried out in good faith, its precepts would then bind us together as a great brotherhood. But, alas! we are not only surrounded by enemies without, but by feuds within. Parvin has said: "If society does treat the medical man harshly and unkindly, is it any worse than medical men treat each other? Many of the worst things ever said of a physician originally came from a physician's tongue. Society is often a whispering gallery, which echoes back those utterances. Were we more charitable towards each other, we would silence half the reproaches which are brought upon the profession."

Another equally distinguished authority has said: "It would always be well for that man who should be ready to rejoice at the mishaps of his neighbor, and who hastens to profit by his misfortunes, to reflect that, being human, we are all thereby fallible, and that the day may not be far distant when he himself may stand in sore need of, and most wistfully crave all human sympathy; and furthermore, that he does injustice to one of his peers, directly wounds his profession, and reflects upon himself."

Then, gentlemen, let us revere the code that teaches us to respect each other, and each other's rights; to cultivate that harmony and good feeling which it teaches; and to this end, let us be especially careful to strangle the viper *jealousy* when it raises its hateful head. It is in this bag of venom that there lie, though oftentimes attempted to be concealed, most of the woes which have retarded our progress, embittered our professional lives, furnished food for the satirist, and been, for two thousand years, the foundation for most of the ridicule cast upon the profession. Yes, gentlemen, it is a disgrace from which every well-bred gentleman in the profession seeks to escape, though his own testimony, as well as that of the world, agrees that the medical profession is composed of the most jealous set of

men on earth, and without a parallel in any other vocation. While we wage war upon all quack and nostrum venders—our common enemies outside of the profession—we are no less engaged in a more destructive war among ourselves. The nostrum vender proclaims to the world that all other patent medicines but his own are worthless; and some of our regulars are too prone to proclaim their own superiority, and to roll under malicious tongues the sweet morsel of slander, or the slightest suspicion of malpractice on the part of a neighbor. Gentlemen, am I speaking the words of truth and soberness? Would to Heaven I were deceived—that it were only a dream of the pessimist. In the abstract, our profession is a “noble profession,” a “God-like profession;” but this is the ideal standard which all revere, though but few, if any, have ever reached its highest round, free from the contagion of selfish ends. How many lie around its base, accepting its sublime and elevating truths—but too heavily laden with selfish thoughts and with bitter jealousies, ever to reach beyond the lowest rounds!

When the young aspirant for medical honors opens this Bible code of our profession, this matchless summary of medical proprieties, he cannot but feel its elevating influence—its index pointing to a life of usefulness to his suffering fellow-creature, as well as of profit and credit to himself. But too soon the sickening spectacle presents itself of bitter rivalry and suspicion, of jealousy and disparagement, of brother against brother, for such we are in a calling so sacred. In fact, this jealous habit has become a by-word among the laity, to the scandal of the profession. To the older members, let me say, never permit this unworthy passion to extend to the younger laborers in the profession. Take them by the hand; never, in your consultations, give them any occasion to feel their disadvantage or inferiority by word, look, or manner; but rather inspire them to feel the importance of their position, which will give them confidence in themselves and relieve them of the embarrassment so natural to the young practitioner. If no higher motive should incite you to this line of conduct, reflect that though now you are in the manhood of your professional reputation, the time will soon arrive when instead of the popular phrase, “He is too young,” which disparages so many a worthy though inexperienced physician, the cry at your expense may be, “He is too old,” and confidence be destroyed in your skill and practice.

And now, gentlemen, permit me to say a few words upon the subject of Medical Societies, and then I will close these remarks, already too much protracted. To me it has always been a matter of surprise that so few comparatively of the profession take any interest in medical organizations for the promotion of medical art and science. Apart from the interest which every doctor ought to feel in the advance of his profession in these directions, there are other considerations. One of the objects of these meet-

ings is the promotion of harmony and kindly feeling in our own ranks, and to provide that relaxation both of mind and body which we so much need. It is here that we reap the fruit of our annual labors. It is in truth a general consultation of the whole profession, as expressed by the various reports, both regular and special, and the discussion of their respective merits. I trust we shall be honored with many of the latter, for I hold that every Fellow feels and acknowledges his obligation to contribute something of his experience and observation to the common fund of medical knowledge. The very fact of fellowship in such a body emphatically implies that the member shall actively exert his efforts in the common behalf, filled with the inspiration of progress and moved by the broad liberality of distributing his knowledge among all. Yet we should not be willing to reap from the fields where we have sown nothing. From the mere routinist we expect nothing; for he neither reaps nor sows.

It is just to such organizations as this that the medical world owes its progress and its trophies. Strike out of existence the great medical societies of Europe, and those of our country and State, and I verily believe we would go back half a century before the expiration of the present generation.

The importance of such Associations is recognized by all the eminent men of the profession in every country. To such an extent are its beneficial influences felt, that even International Associations have become a marked feature in the programme of medical societies. As some one has said, these societies are the winnowing machines of the profession, serving the most useful purpose of separating the good from the bad, the true from the false. It is always painful to me to hear from any physician in good standing—as I sometimes do—that he sees no special advantage in Medical Associations.

May I hope that the day is not distant when our State shall have not only this central Society, but county and district organizations, combining individual effort in one grand systematic endeavor to elevate the profession in Virginia to a standard second to none in the Union. Would that I could say something that would excite the pride of the profession in Virginia to the cordial support of this useful and honorable Association.

While we cannot boast of so many medical journals as many other States, or even as some of the larger cities, I would urge the extension of a liberal support to the two we have that each may be placed on a sure and permanent basis. It is through this current of medical information that technical literature is made so cheap that no one of us is so poor that he cannot purchase. Such is the extent and abundance of translations from foreign tongues into English, that no excuse can be reasonably made for a failure to become familiar with the current topics of medical discussion in all lands.

Let no man say in his failures (for such occur to all), "I did the best I could." The question before a court of conscience will be, when all these means of obtaining the best information lie so cheaply around, and are so easily obtained, did you do the best that could have been done? I believe there is no higher obligation that a physician owes to his patient than that of keeping abreast with every development of medical science; and no one who fails to recognize this fact ought, in my mature judgment, to take the responsibility of professional attendance.

Brethren of the Medical Society of Virginia, though I am nearing the sunset of my life, and the period when I must retire from the active duties of the profession, after nearly fifty years of labor in it, a deeper feeling than that of personal interest goes out from my heart, in sympathy with your objects and with your difficulties. If I have dwelt with undue force on the grievances of the medical profession, it has been due to the absorption of a special theme. The task has been ungracious, but I have discharged it from the highest sense of duty, and in full confidence that the correction of these wrongs involves the advancement of the standard of medical science in every field, and the amelioration to that extent of the physical, social and moral condition of mankind. For I do not forget that ours is a science especially blessed, notwithstanding its trials and its crosses, in the consideration that it ranks first of merely human professions in the benevolent spirit which moves it, and the practical relief it affords the inherited curses of our race. And let us be sustained, amid all the abuses that we see and suffer, by the reflection that the circle of honest endeavor in a great and good cause widens beyond this passing time, and extends to the farthest confines of eternity. Let us remember that although organization, investigation and system, the improvement of what is worthy, the exclusion of what is vicious, are all essential to the success of our work, its higher power and principle of action is the *altruistic* spirit so essential to it. And thus, by the cultivation of that divine motive, we bring ourselves in closer union with the Great Physician, who wounds and heals; and may with the clearer faith, and in the pious spirit of Paré, ask his blessing upon our work and its issue. And so, with words of warning as well as of encouragement and counsel, but in both and in all, with the sincerest interest and with faithful fraternal attachment, both personal and professional, I invoke for your Association the prayer which the dying patriot priest of Venice addressed to his country—*Esto Perpetua!*

ANNUAL ADDRESS
TO THE
PUBLIC AND PROFESSION.

Influence of Medicine in Its Connection with the Outside World
—The Professional and Non-Professional—Their Influence
upon Each Other.

By L. ASHTON, M. D., Falmouth, Stafford county, Va.

Delivered on the First Day.

*Mr. President, Ladies and Gentlemen
and Fellows of the Medical Society of Virginia:*

At the last meeting of this Society, held in the city of Alexandria, you were unwise enough to compliment me by choosing me to address you and the public on some subject of equal interest to the public and profession. I could well have wished that some more aged, if not more earnest representative of the Art of Healing had been selected to undertake so entirely original and so responsible a task. It was an honor unsought, and one I would most gladly have seen fall on shoulders more worthy to wear them. When I look in front of me and see the cloak of Æsculapius on shoulders whose heads are fast silvering in the work of our noble profession, and on whom honors seem to fall, as though ready made, from heaven, I feel as though it were presumption in me to suggest a thought, or utter a syllable on anything pertaining to medicine.

But since it is your will, gentlemen, I shall rest on your kindness, and endeavor to call your attention briefly to the *Influence of Medicine in Its Connection with the Outside World—The Professional and Non-Professional—Their Influence upon Each Other*. To do so, gentlemen, intelligibly, I shall have to ask that you bear with me while I consider briefly some of the discoveries and discoverers in medicine, with their theories. And to you, fair ladies, deem me not prosy if I should carry you back into those dark ages where woman's prayers first soothed the aching pillows, as they

taught the languishing sufferer to look to that Physician—the Great Healer of all ; or, as oftentimes maybe, have lighted the path to Stygian horrors with the splendor of your smiles.

Every age in medicine has had its peculiar influence upon its members and society, and all have been benefitted by the confidence every community has reposed in its medical men ; and while there have been errors, still those errors have often resulted in good.

The scope of medicine is one that will ever lead its honest worker, discoverer and thinker, on into paths of honor undiscovered. When we reflect for a moment upon the effective strength of the medical profession the world over, according to our several gifts, we find, probably one million of men and (excluding the significant old ones of both sexes—say forty—) women ministering to the physical ills of mankind. Each minute brings one of us in or near the presence of death. Each minute brings one of us at least in presence of the first breath of the living temple, making us the eye-witnesses of the natural fact so immortally expressed, that in the grand scheme of creation, “death has no sting, the grave no victory.” In the midst of these first and last phenomena of human existence, we live conversant also at times with endless changes of pain and pleasure, sorrow and happiness, strength and weakness, lying between the first and the last. From the certain destiny that is before the medical profession, and from its close converse at all times with extremes of anxiety, it might be inferred that our life is one of gloom. It is not so. As men, in the face of positive danger, become, even against their natures, brave, by a process of reasoning peculiar to the occasion, and extorted from them by virtue of necessity, so medical men, in the actual presence of the most serious evils, as evils are commonly understood, become implacably resigned to anxiety, and live in it, apart from it, save as all men live in it when it comes to them or theirs individually. The mind, too anxious about results ; the hand, too tender for action ; the voice, too hesitant to suggest or to command—is not the mind, the hand, the voice to be trusted when the issues of life or of death stand in array ? So our mistress, Nature, ordains, not by the bending of her laws to us, but by the bending of us to her laws, that we shall be as we are, men who are common sharers with other men in joy and in sorrow. Men, who live in the presence of more sorrow than the rest of the world, but who, by hourly converse with that sorrow, are mentally lifted from it. To us in our actual vocation—in our dealing with abstract man—blood is blood, muscle is muscle, nerve is nerve, pain is pain, exhaustion is exhaustion, apart from all the other considerations by which other men, or by which we ourselves, out of our special vocation, exalt or degrade the human social life. In moments of exalted ambition, we may lament our lot ; but we must bow to it as to the inevitable, and in moments of solemn

thought, we must accept it as blessed. So is it, indeed, received by the world; for the peasant rests upon it, feeling that in the hands of the faithful Healer he is as safe as the King. Station and money make no difference. While even christendom, speaking by the mouths of its holiest of men, loves to illustrate the character of the Divine Founder by his deeds done as a physician.

While the medical profession in all countries have taken a retired position in politics and religion, and while negative we appear to be, still, we have at all times, and in all countries, exerted a veiled influence, which, like all great natural forces, has been the more potent, because it has not been ostentatiously exposed to public view. When great catastrophies of disease have shaken the hearts of men, the medical profession has ever been at hand, a firm and reliable power, keen to investigate, bold to intervene, and, by natural contempt of danger, qualified to sustain hope and prevent the panic of despair. In our daily routine, it is a part of our duty to upraise the downcast, while we hold up to the world, by the constant strain of our efforts and ambition to improve our science, in all its parts, the indisputable proof that we are a progressive science, always prepared to lessen the sufferings of our fellow beings.

In the midst of the multitude of authors who have written upon medicine in every age which has possessed a literature, the number of cardinal ideas, of distinctive methods, opinions or principles has not been great. Those who may be considered to have been original thinkers or leaders in medical philosophy have been few. Few have started anew in ideas, systems, methods, or theories. Some, indeed, have no nearer relation to discovery than has the beautiful mirage to the city.

Public opinion has ever acted as a barrier to medical discoveries and writings—too often treating all original discoverers and thinkers as cracked-brained theorists, in whose hands the lives of human beings are not to be trusted. Even the great Harvey, he who immortalized himself by the discovery of the circulation of the blood, while he gained the honours of the scientific world, lost character as a practical physician. He was far too scientific for the vulgar; so he lost practice. Had he have lived in this day of boasted enlightenment and progress, it would have been the same.

I will not weary you, gentlemen, with a detailed account of different theories, with their peculiar influences on each successive age, though many tempt me by the way; but I will simply add that in my judgment what medicine needs most in this progressive age of ours, where time is being counted, not by days and years as of yore, but by minutes and hours—so rapidly are we living—what I say is most wanted is *positivism*, more exact observation of clinical and therapeutical facts. Medicine needs more facts and less theory. It was only after medicines were discovered that men began to reason upon them.

The influence of medical men have ever been felt through the purely physical sciences. Our profession has cultivated them with an energy and perseverance shown by no other special class of professional men, as shown by Dr. Kepler, who first laid the steps in the study of vision. It was Dr. Mahow who first suggested the compound character of the air, and the existence in it of a something that sustained the combustion of flame, and the combustion of the living body. Our Boerhaave excited a taste for chemistry, and gave character to that science, which, since his day, has never flagged. It was our Black who discovered and determined the product of burning carbon, and showed that product as exhaled from the ordinary furnace, as also from the human lungs. Our Young propounded the now accepted theory of light as undulating. Hunter remodelled the study of natural history, and laid the foundation of that history—past and present. And I could mention many other of the physical sciences in which medical men have out stripped all others. If, indeed, in name these simple matters of history—shall I say too much if I claim that in the advance of the physical sciences—medical men have taken and sustained a pre-eminence which those who have made pure physics their sole study have not surpassed.

If we turn from physical to social science, we find again among medical men those exerting the same influence. The teaching of the deaf and dumb and blind to hold converse with their more fortunate fellows, has been the work of our zealous progressionists. The foundations of sanitary science were laid by Ramazzini, Jenner, and their followers. While from the galled limbs of the insane, the fetters were forever boldly struck by one of our professional brothers, "Gardner Hill." And by the labors of Conolly, the humane management of the insane was not only systematized, but the whole subject was reduced to an order, simplicity and advancement, which contemporary narrative has failed to reveal in all its plentitude and beneficence.

Connected with this same subject, the profession of medicine, in silent measures, is untiringly laboring to discover the intimate relationship of crime and disease, the end of which work must be to demonstrate to the law-makers that the absolute theory of punishment as the one and universal remedy for crime is equivalent to crime itself in folly and in evil. And that the major part of the miserable wretches who occupy the prison cells or felon's dock the present day, are specimens of mentally deformed humanity, to save whom or the similar of them from disfiguring another age, eminent medical men are going back to principles of their growth, training and development to cast improvement there.

Lastly, in its estimates of human life—life as a something that may be calculated upon even in the money markets, insured upon and realized as of so much gross earthly value—the medical profession has produced learning

which has no rival. One man of our profession has, in this direction, invented a science, the ultimate value of which cannot be foreseen—it is so wonderful. You have anticipated me when I name *Dr. Wm. Farr*.

The learning of the medical profession is at first sight singularly irregular and diverse. In this advanced age see the learned medical man what aids he calls? He enters the chemical laboratory, and brings forth potent agents with which he moves the living organism almost as he pleases—now putting it into dead slumber and perfect rest, anon increasing its muscular action till the will is made subservient to the stronger power. He subjects the body to extremes of heat; he freezes parts of it till the structure is like stone. If he chooses, he puts his ear to the body and hears its mechanical throbbings and breathings, and reduces what he hears to such perfect rule that he can calculate the changes of structure and function as distinctly almost as if he could see the hidden workings. If he lists, he takes up his reflecting glass, peers straight into the eye and other parts of the organism, and observes the changes of structure and function with exactitude. If he lists, he takes out his delicate thermometer, and measuring the animal force, determines with refined nicety the balance of overaction or reduced action. He counts the pulsations of the heart with a stop watch, or weighs the pulse, I may say, with his sphygmograph, and makes it write for him its own history, black upon white. He takes out of the body a drop of its blood, or other structure, and, with delicate lens, reads off the history of great physical changes going on in the whole or part of the body; and, it may be, forecasts results with true discernment. In short, he gathers such absolute information respecting the body and its conditions, that if he were master to rule, as he is to observe its phenomena, he were master of all that man could achieve in physics, and would be already that perfect animal engineer he one day must become.

The science of medicine has arrived at a point when, without dogmatical violence, it should be ready to sustain a firm defence of all its practical parts. In simple enquiry for remedies possessing each a specific virtue in charms or spells, our ancient fathers of now civilized medicine spent their days. Slowly they gave up the direct superstitions; yet, so slowly, that as late as the reign of Charles the Second, there were some who believed the royal touch a cure for scrofula, and some there were when this mad monarch was taken ill, with a strong dash of superstition hanging to them, must needs cram dead bones, finely powdered, down the royal gullet, into the royal stomach itself. But in time the direct superstitions died out, the actual remedies were left to work alone, and physicians of eminence became great in particular remedies for particular diseases; these in time were swept away, and the principle of trying to discover remedies by empirical observation is on the wane. The whole field of medicine is indeed so changed

that if a physician, well informed in all modern advancements, could possibly meet even the very best informed medical men of the last century, I doubt if there could be any common understanding between them, either in respect to the nature of symptoms, causes of disease, or question of treatment. Notwithstanding all of this, there is yet great work to be done. Still influenced by the crude hypothesis of the possession of particular remedies for particular diseases—still vain of its method of learning by loose and disconnected observation, the medical mind is weak even in the knowledge of positive treatment. It flatters itself with what it calls experience, which means individual opinion as to the virtue of some particular thing, tested all on one side, without a single research in the line of disproof, and without the remotest allowance for the almost certainty of coincidence; or running into an extreme of disbelief, it flatters itself again on an experience in an opposite direction, experience of doubt as to the positive value of medicinal remedies altogether. Thus it is open to any man to obtain notoriety for any remedy, however absurd, and based on hypothesis, however foolish, if he will swear hard enough and loud enough to the good results which are seen while the patient is under the remedy, and nothing more. Thus it is also open to any man to gain notoriety by practically giving no remedies at all, if he will only swear hard enough and long enough to the good results which were observed while the patient was under no remedy, and will be silent on all else. Let it not be concealed for a moment that this state, though it mark only a transitional stage of learning, is all wrong. It makes the profession, where it should be as firm as adamant, and as certain as time, as loose as sand. Thus circumstanced, the profession gives way to popular cries, and with blushing face, bends its head to the ignorant fashions of the hour. For several thousand years one remedy I could name held unrivalled sway. Suddenly, by caprice of experience and fortuity, this remedy become unpopular. Then from that side of it which was good its masters turned to that side of it which was evil, and lo! a remedy of several centuries was let go in a quarter of a generation. In contrast, there springs up another remedy I could name, which for more than two thousand years had held a modest place. Caprice now lifted this remedy into the sunshine of favor, and from that side of it which was bad its masters turned their eyes to that which was good, and lo! the remedy is so exalted that grinning Bacchus leaves his barrel to find out Esculapius, and congratulates him on his conversion to the right faith at last.

You smile; it is a theme on which to be solemn. There can be no true, practical, safe, or sound medical skill, no freedom from quackery, no mutual trust between the world and the profession, until each man of physic can conscientiously say what I believe or teach I know.

And now my hearers let me say in conclusion of medicine, standing as

the profession does to-day in the very noontide of its splendor and glory, with the halo and the shadows of its past experience gilding the clouds that gather on the horizon, brought together as we are by the objects in view—those of improvement in our profession, and a cordial interchange of brotherly love, showing thereby to the world that jealousies are fast being swept from our ranks, and the members of the medical profession are moving on as one man to the attainments of its high object in view, looking back in the far distant past and down the dim vista of years to come—that we medical men all glory in its past history, its present grandeur, and the glorious future that awaits its high aims and aspirations.

We, gentlemen, are laborers in a field of science, whose grand end is to alleviate the woes of the afflicted ones of earth; therefore, our profession is one well adapted to inspire the loftiest sentiments, and arouse the purest emotions of the human heart. Ours is a calling second to none. None have the grave responsibilities upon them that have the physicians; no other class of professional men on this beautiful earth that God has given us has to bear the earnest pleading cry for assistance and help, where help is possible, or the look of utter despair or crushing resignation where no assistance can be rendered. Dating back as our profession does to the remotest ages of antiquity, bounded by no special lines, but wherever human nature has had an existence, wherever the hand of providence has seen fit to press its ills, there are to be found the monuments that honor our profession. Man's knowledge even fails to penetrate the dim obscurity of the centuries that have circled away since its glorious philanthropy began. Since the foot of man first pressed the soil of Asia, from the days of Solomon and the Prophets, on down through the succeeding and changing years to the present day, medicine has pursued its triumphant course, battling with disease and death. Then let us, gentlemen, co-laborers in the same field of science, so raise and exalt individually our profession that those who come after us may mark the

“Foot-prints on the sands of time.”

REPORT ON ADVANCES IN PRACTICE OF MEDICINE.

By G. WM. SEMPLE, M. D., Hampton, Va.

Mr. President and Fellows of the Medical Society of Virginia :

Your reporter, in consequence of a troublesome affection of his eyes, has been unable to devote the necessary time and attention to make such a report as he desired to present ; and he asks, in advance, your indulgence for an imperfect compliance with his duty in presenting only a few subjects for your consideration.

The first subject he will introduce is the *treatment by aspiration of obscure cases of hepatic abscess, distinguishable by certain head symptoms*, a treatment first proposed and practised by Professor Hammond, which was so well and opportunely discussed in the admirable address before this Society at its last meeting, by the illustrious Dr. J. Marion Sims, and which may now be considered fully established as a great advance in practice. It is unnecessary for him to dwell upon the great benefits that must result from this stride in practice. Numbers of lives will be saved by it, and the amount of suffering of mind and body that will be relieved is incalculable. By this practice, the patient, whose case will now be given in his own words, would have been relieved of two years of great and constant sufferings, and from the great danger attending the spontaneous cure, which fortunately occurred.

On October 18, 1877, I received a severe injury to my left leg. Little fever resulted, and the extensive wound was healing kindly ; but I was attacked on the eighth day after the accident by traumatic delirium, which continued more than a week. I am over 60 years old, have always been of temperate habits ; until the last thirty years have suffered frequent attacks of malarial fever, which have since been prevented by a single grain of quinine taken every morning during the malarial season : have suffered all my life from habitual constipation, which was never benefited by any treatment of my own or any that was advised by my professional brethren. When the accident occurred, I was otherwise in good health,

and my younger friends generally took me to be ten years younger than I was. After the leg got well, I continued to be the subject of the same spectral appearances that I had seen in my delirium—sometimes pleasant and beautiful, sometimes so horrible that *obstupui, vox hesit faucibus steterunt que comæ*, though I knew them to be unreal. I became almost sleepless, never sleeping more than three hours of the night, though always drowsy. I became melancholy and disposed to solitude, and had great sensitiveness of my condition of health. I lost my appetite, although nothing that I ate disagreed with me. With loss of appetite, there was constant loss of flesh and strength, until I weighed only 134 pounds—my usual weight being 165 pounds; and while I had been an unusually good walker, it was laborious and fatiguing to me to walk one or two hundred yards. I suffered from frequent vertigo, there were floating spots always before my eyes, and if I raised them high, I staggered in my gait. I became so despondent and desperate that I often detected myself revolving in my mind the easiest and most secret means of self-destruction, of which I always had had the greatest horror. This condition continued for two years. I have forgotten to mention, that in my want of appetite there were occasional intervals of boulimia. I suffered no pain, except occasionally slight temporary wandering neuralgic pains. I suspected the liver to be the seat of my trouble. Though there was no apparent enlargement of the organ, there were none of those pains that usually accompany diseases of it; there was no jaundice nor bilious discoloration of the conjunctivæ. I usually controlled boulimia; but on the 15th October, 1879, after having suffered from extreme constipation, not having had an evacuation for five days, and having suffered from considerable pain at the end of the tenth rib, on the left side, for two or three days, I had a most voracious appetite; and becoming desperate, ate a most enormous dinner of fish, oysters, crabs, beefsteak, and of all vegetables of the season, and finished with ice cream. At night; about 9 o'clock, returning home from a professional visit, I was attacked by violent abdominal pains, and an urgent call to evacuate the bowels. I was forced to seek the privy at a hotel, where I accomplished, after the most violent straining and pain, the evacuation of a long roll of hard fæces followed by a copious liquid stool, which exhausted me very much. After a delay of one-quarter of an hour, I prepared to go home, but was forced to return for another copious operation, and this recurred there several times, and again after reaching home. I got to bed at 11, fell into a sound sleep, and slept until 9½ next morning, when I was waked up for breakfast, after having slept more in one night than in any three nights for two years. On rising, I was obliged to get to the chamber immediately, and had quite a large evacuation of yellow bile mixed with at least four ounces of pus. For the next eight days, I had a good appetite and digestion, but had four or

five bilious evacuations daily, in which there was always some appearance of pus; and for ten days more these frequent bilious evacuations continued unmixed with pus. From the 15th I continued to sleep well, and felt well in every respect, except the continuance, for a few days, of the pain at the end of the tenth rib. After the frequent evacuations ceased, my bowels became more regular than ever before in my life; and by the 1st January, I had regained my health and strength, and, indeed, weighed more than ever before, and could "double-quick" further than I could walk during my ill health, as I did, to see a patient suffering from profuse hæmorrhage, and was in good condition to attend her on my arrival. All this suffering, and the danger of rupture of the abscess into the peritoneal cavity instead of into the intestine, which had evidently occurred, would have been prevented, had I then known the safety of aspiration of the liver.

In introducing the subject of *malaria*, your attention is asked to a quotation from an able and valuable report made by my friend, Dr. J. D. Seeley, to the Medical Association of Alabama. "By the experiments of Messrs. Klebs and Tommasi Crudeli, it would seem that the following facts are established: That the malarial poison is the result of the spores of an alga, which they have named *bacillus malarie*; that these spores develop within the animal organism; that malarial fever can be produced at will by injecting beneath the skin liquids containing these spores; and lastly, * * * that a very moist subsoil, with a surface soil exposed to a high temperature and rapid evaporation, are the most congenial conditions for the rapid development of the plant and the multiplication of its spores."

These spores of *bacillus malarie* may be produced at will by a proper cultivation of soil. Thus, the doctrine of a *contagium vivum* of malarial diseases is fully established, and the *contagium* definitely determined.

The salts of quinia and of the other alkaloids of cinchona, more certainly than any other antiseptics, destroy the life of these sporules, when added to a filtrate containing them; they are also the most effective agents we possess for the treatment of malarial diseases, arresting more certainly than any other medicines all paroxysmal attacks. But do they do so in virtue of any antiseptic property by which the vitality of the spores in the blood of the patient is destroyed, or by some action on the nervous system of the patient, or by any other vital modification of his system? That the arrest cannot be due to the antiseptic effect of the remedies, unless the quantity of the salts administered is sufficient to impregnate all the blood and other fluids of the system, to sufficient strength to destroy life in the sporules, would seem to be well settled by the reasoning of Dr. Richard H. Lemmon in his admirable paper, published in the October No., 1878, of the *Virginia Medical Monthly*. That the effect of quinia is rather due to some influence exerted on the nervous system, or some other modification of vital

action, would seem probable from the fact, that malarial paroxysms, after their arrest by these agents, frequently recur at stated periods, without fresh exposure to malarial influence. This would not be the case if the vitality of all the sporules of the contagium vivum had been destroyed by the action of an antiseptic.

The use of *hypodermic injections of some of the salts of quinia* constitutes an advance in the treatment of malarial fevers which should be more generally adopted, because of certain circumstances that may forbid their use by the mouth or by the rectum ; and for the further reason that they act so promptly as to arrest the paroxysms when the time for their recurrence is near at hand. True, the salts thus used heretofore have been liable to the objection, that they frequently produced large and painful abscesses ; but Messrs. Andrews & Thompson, of Baltimore, prepare a solution of the *hydrobromate of quinine*, which is generally used and recommended by our professional brethren of that city, and which is not only not liable to that objection, but does not produce tinnitus or deafness, nor any of the phenomena of cinchonism. The remedy is high priced, but in consequence of the small dose required, when thus administered, is not expensive. From 10 to 20 minims, containing 2 to 4 grains of the salt, are equal in antiseptic effect, thus administered, to 10 or 20 grains of the sulphate of quinia, when taken by the mouth. The first use of this solution which came under the observation of your reporter was in the case of the apothecary who ordered it for him. The supply came to hand when the apothecary was momentarily expecting an ague. Not knowing the dose, but finding the strength of the solution stated on the package, he introduced one drachm, by two injections, at the point of insertion of the deltoid muscle of the left arm. The paroxysm was prevented ; and though he had before, for several months, suffered from regular returns of the ague every twenty-first day, he has not since (nearly three months) had an attack. But a large abscess formed at the point of insertion, and several much larger ones succeeded. Your reporter was not deterred, however, from making further trial of the remedy, and after the use of $\frac{3}{4}$ ss of the solution in 10 minim doses, he has not failed in a single instance to arrest the paroxysm, nor have any of the patients suffered a recurrence of attacks, nor has cinchonism been once produced by it.

Your reporter does not recollect to whom the credit belongs of the first use of sulphate of morphia and sulphate of atropia by hypodermic injection on the access of the paroxysm to produce reaction from the cold congestive stage of malarial fever, to relieve the violence of the neuralgic pains which attend a paroxysm, to bring on the sweating stage more quickly, and to reduce the force and duration of the paroxysm. But the practice first advised by McIntosh, to give opium for these purposes, first suggested it to his mind ; he has certainly long used these agents with con-

stant success. He has also used it by injecting it over the epigastrium, to relieve the nausea and vomiting which sometimes attend in all stages of the paroxysms. In one case of most profound congestion in which, when called to the patient, the cold stage had already continued over five hours, and the patient seemed to be in danger of a quickly fatal result, suffering also from great nausea and constant retching, and from bilious vomiting; the vomiting was promptly arrested by the hypodermic injection over the epigastrium of sulphate of morphia, gr. $\frac{1}{3}$, and sulphate of atropia, gr. $\frac{1}{60}$; and reaction was brought on in half an hour, which was short, and quickly followed by a profuse sweat. It is true, that even when administered with atropia (which sometimes prevents it), the secondary remote effect of morphia is, with patients of a certain idiosyncrasy, to produce very distressing nausea and vomiting, attended by a sense of greater prostration than really exists; but your reporter has observed that the use of cold lemon syrup and dilute hydrobromic acid, as used to prevent cinchonism, also prevents these troublesome effects of morphia. This observation is original with him, though since he began this practice, it has been recommended in some publication to the author to which he cannot refer, but to the credit of whom its introduction into practice is therefore due.

Seeing the similarity of this nausea, vomiting and prostration to that produced by apomorphia, the idea suggested itself that they may probably be produced by apomorphia resulting from a change in the blood of a small portion of the morphia into apomorphia; and this view was afterwards considerably strengthened by the fact, that a patient to whom apomorphia had been administered to evacuate the stomach of a poisonous dose of carbolic acid, and who had frequently suffered nausea and vomiting from even the smallest doses of morphia, could not be convinced—so alike were the sensations produced by one and the other—that she had not taken morphia. In the few cases in which the hypodermic injection of morphia and atropia have failed to produce reaction from the cold stage of congestive malarial fever or from collapse, your reporter has always observed, on inspection of the part at which the injection had been made, that the solution remained there unabsorbed, demonstrating that the absorbents were incapable of absorption—in fact, dead; and, therefore, that no medicine could be introduced into the system from any surface, or produce any vital action, and the patient was beyond all hope of recovery.

As the ill effects of the other salts of quinine are generally prevented by hydrobromic acid, and are not produced by the hydrobromate of quinia, and as the ill effect of the other salts of morphia are also generally prevented by hydrobromic acid, may it not be found that the administration of the hydrobromate of morphia would not be followed by the usual ill effects of its other salts?

Another great advance in the treatment of malarial fevers has been made, in the application of *pilocarpin* to their cure. Administered by hypodermic injection, on the access of the cold stage, or just before its access by deglutition, this remedy completely aborts the paroxysm, and cures the disease, which rarely returns, unless on fresh exposure to its cause. But this and the other applications of this remedy, which acts so powerfully on all the emunctories, will not be pursued further, as a full report on the subject is expected from another source.

Dr. Walter Clarke Jackson, a physician of distinction of Montgomery, Alabama, in a paper read before the Medical Association of the State of Alabama at its last meeting regarding the symptoms of *hæmorrhagic malarial fever* as caused by a venous congestion of the thoracic and abdominal organs, resulting from want of heart power, adopted the plan of treating it by the hypodermic injection of the sulphate of atropia, which has not, in his hands, failed of success in a single instance. The injection of from $\frac{1}{100}$ th to $\frac{1}{48}$ th of a grain is made every eight or twelve hours, according to the severity of the case. After the third or fourth injection, the hæmorrhage from the kidneys ceases, the skin begins to clear up, the respiration improves, the temperature falls, the frequency of the pulse is lessened, and in from thirty-six to forty-eight hours the patient is relieved. Dr. Jackson being a physician of experience, and his plan of treatment being founded on sound pathological, physiological and therapeutical views, your reporter expects a general clinical experience will confirm his, and that this will be established as another advance in practice, by which many lives will be saved from the destructive power of this very fatal disease.

Gelsemium has been much relied on in the treatment of malarial fevers; but your reporter cannot commend it for that purpose. He has, however, used it most successfully in facial neuralgia, in inflammations of the eyes (particularly of rheumatic form) in otitis media, in coryza and ozæna, and in neuralgic and muscular rheumatism. With the permission of the Society, he will detail one or two cases of each of these latter forms, in which it was successfully employed.

Mrs. —, suffered from rheumatism of the right arm for more than six weeks, in a neighboring county under the treatment of an excellent physician, in the latter part of the winter of 1877. On the 27th December, 1878, she was attacked, as she had been before, with violent pain in the right arm, which felt as if it were seated in the bone. It extended from the shoulder to the elbow. There was no swelling. The pain was always much increased at night. The attack was ushered in by a chill in the afternoon. The fever, of a remittent form, was highest at night; heat, $104\frac{1}{2}$; acid sweat and urine. The patient had long been a sufferer from tinnitus and partial deafness, and was, therefore, not treated with salicylic acid or quinine,

but with colchicum and acetate of potash, and a hypodermic injection of morphia at night, necessary to relieve the intolerable pain. The urine on the fifth day had become alkaline, but neither the pain nor the fever abated. Twenty drops of fluid extract of gelsemium were ordered at 7 P. M., to be repeated every two hours until the physiological effects were felt. These the second dose produced, and she felt greatly relieved, and determined to repeat the dose contrary to my caution. It rendered her perfectly blind for eight hours, but she was relieved of all pain and the fever left. The following night, only considerable dilatation of the pupils remained, and next morning she was well.

This is the first of six like cases treated with equal success.

Of muscular rheumatism causing torticollis, many cases have also been treated successfully—the muscular pain and contraction ceasing instantaneously on the appearance of the physiological effects of the remedy. Two cases of this character will be given.

CASE I.—Mrs. —, aged 40, after a long ride the day before, and having spent the day pleasantly, returned at night quite well, though much fatigued. Having slept well from 10 P. M. to 8 A. M., without change of position, on rising she was seized with violent spasmodic pain in all the muscles inserted in the occipital ridge of the right side and in the mastoid process. Being near at hand, I administered 20 drops of fluid extract of gelsemium at 9; at 10 the pain had very much increased, and the slightest motion or even one walking in the room, caused her to shriek. Morphia sulphate, gr. $\frac{1}{4}$, with atropia sulphate, gr. $\frac{1}{60}$, was given hypodermically, and followed by acid hydrobromic dilute, 3j. This somewhat quieted the constant pain, but on the least motion, it was extreme. At 2 P. M., 25 drops fluid extract of gelsemium were given also, without appearance of physiological effect, and at 9 P. M., 30 drops. At 10 P. M., slept from effect of morphia until 8 A. M. Then awoke, suffering nausea and vomiting from morphia, as she always had suffered from it, and with pain as great as ever, causing repeated shrieks at every effort at vomiting. At 9, gave 35 drops of the fluid extract of gelsemium without cessation of pain or any perceptible effect. At 2 P. M., 40 drops, and still no effect; at 8 P. M., 45 drops were given, and the physiological effect of the medicine was quickly manifested in a slight sensation of weakness in the knees. The pain was immediately relieved, and the patient could move and walk with only a sensation of soreness in the effected muscles, and at 10 P. M. fell asleep, enjoyed an excellent night's rest, and awoke in the morning only feeling soreness in the muscles, which gradually and slowly wore off, but did not entirely cease for two months. There was no feeling of fatigue of the eyelids at any time, and no dilatation of the pupils.

Doubtless the manifestation of the physiological effects of the remedy was

much retarded by the morphia, and relief would have been obtained much earlier, and from a much smaller quantity of the gelsemium, had the morphia not been given.

CASE II.—On the 16th of April, learning that a favorite old negro woman, aged 70, had been long sick unattended, I called at sunset to see her. She had been attacked in a similar manner (the same muscles being affected) on the 24th of December previous, and had been confined to her bed in great suffering ever since, unable to rise without assistance. Her skin was dry, but there was no fever heat. Her appetite was good, and no derangement of digestive organs, except great constipation. She was given three compound cathartic pills, which operated freely in the morning, followed by twenty-drop dose of fluid extract of gelsemium, which was repeated in two hours. Very soon the physiological effects were manifested, in fatigue of the eyelids and knees and confusion of vision, and the patient was immediately relieved of pain, and able to rise from bed and sit up comfortably, only feeling much soreness in the affected muscles. The next day I directed her to take the two remaining doses of gelsemium during the evening, but the patient fearing permanent injury to her vision, would not take it. Next evening I was informed that she had some return of pain and muscular contraction. The two remaining doses were gladly taken, and the old creature was out at work in her garden next day. According to the experience of your reporter, no benefit can be expected from this medicine unless administered in such doses as to ensure apparent physiological effect, and this requires much larger doses than are recommended by authorities, but with proper caution no danger is to be apprehended from such doses.

Some German physicians have lately introduced in Germany the use of *cold water enemata* as an apyretic in febrile diseases, and vaunt it much as new practice. Your reporter was taught its use as long ago as 1831-2-3-4, by his old preceptor, the late distinguished professor of the Institutes of Medicine in the University of Pennsylvania. Dr. Samuel L. Jackson has habitually employed it in his practice, and has found it particularly valuable in reducing the very high temperature in the hot stage of intermittent fever in infants and children, many of whom he has saved by its employment from the impending danger of convulsions.

One of the *opprobria medicorum*, that terrible disease which ulcerates and eats away and mortifies the flesh, racks the nerves with pain, contaminates the blood and causes it to ooze from the dead vessels, ebbing away enfeebled life, which could not heretofore be cured by the medicine of the physician, nor successfully extirpated by the knife of the surgeon, has lately been successfully treated by Professor Clay, of Birmingham, by the use of *Chian turpentine*, which is said to check and heal the ulceration, to relieve the

pain, to purify the blood, invigorate the enfeebled constitution, and to restore the wretched sufferer to health. True, there have been many adverse reports of cases treated unsuccessfully by this remedy, but may we not rather hope that a spurious article has been used by others, since the medicine is one susceptible of an imitation that cannot be certainly detected; and this view is strengthened by the result thus far secured by the treatment of the only case of cancer thus treated by any Fellow of this Society, which has yet been reported. (See *Virginia Medical Monthly*, September, 1880, Dr. John R. Wheat's case.)

The introduction of a more rational treatment of *phthisis pulmonalis* and other forms of tubercular disease, by tonic and invigorating diet and medicines, and such medicines as promote the absorption and assimilation of fat, and improve nutrition and assimilation, and by open air exercise and exposure to sunlight, has certainly removed these diseases from the class of *opprobria medicorum*. For the successful use of such medicines and diet, however, the stomach must first be placed in a proper condition to receive them. It will be perceived that your reporter, unaccustomed *juxare in verba ullius magistri*, does not adopt, on faith, the much vaunted practice of Dr. Salisbury, or that of German physicians, who recommended the inhalation of the spray of a solution of benzoate of soda as almost a specific. For though the former accords in the main with the most generally approved plan of treatment, yet it excludes cod-liver oil as a medicine, and from which, according to universal clinical experience, very great benefit is derived in practice; and this practice alone seems to claim exemption from free discussion. The latter, though not admitted to its claim of a specific, has done him good service in combating laryngeal symptoms.

Your reporter would call the attention of the Society to the great advance in practice made by J. P. Thomas, M. D., of Pembroke, Kentucky, in the application of *carbonate of ammonia to the treatment of pneumonia*, and to many other diseases of the respiratory system. The therapeutic efficacy of the remedy has fully equalled the confidence Dr. Thomas gives it in all cases which have come under his treatment. He has had no opportunity, however, of its application to the 4th, 7th, 8th and 9th classes of his summary.

Your reporter having recently treated with prompt success a case of *spider bite* by the intra-venous injection of *aqua ammoniæ*, from which no ill effect followed, in which the patient was suffering the most intense pain in the precordial region, in the arms (particularly the left), in the epigastrium, in the whole head, but most intensely in the occiput, and in the back of the neck, which pain extended down the spine and to the lower extremities, though not so severely attended with apnoea—the respiration seeming to be not more than 8 to 10 in a minute; the pulse was so small and feeble that

it could scarcely be felt at the wrist, and was very slow; the skin was cold and the pupils contracted. The patient, in a few moments after the injection of minims xv of aqua ammoniæ, declared himself entirely relieved; the respiration became easy, and the pulse full and strong, and the skin warm and the pupils natural.

In view of the perfect safety of such use of aqua ammonia, your reporter does not hesitate to recommend its application by this mode of administration to the treatment of heart-clot, threatening sudden death, and to any of the cases to which the carbonate is applicable, requiring prompt action of the remedy, or whenever the state of the stomach or bowels forbid the use of the carbonate of ammonia.

Mr. President, your reporter has not to sigh for new fields of conquest, for many others lie open to invasion, whilst he has not fully occupied the few on which he has merely entered. But he must draw this report to a close, lest he weary the Fellows as with a thrice told tale, whilst like the catalogue of a sale, it may have omitted the most important subjects in the class of articles too numerous to mention.

But before closing, let him, as a country physician, exhort the country members of the profession to a more progressive action in the practice. As a rule, they generally keep pace with the knowledge of the art and science of medicine; yet some lag behind in the practical application of their knowledge. Some, for instance, there are, who have not even supplied themselves with a hypodermic syringe—an instrument of absolute necessity to the most successful practice of our art; and some, though they possess the instrument, use it so hesitatingly and infrequently, as to render it almost valueless in their hands. No, sir! let them adopt every new practice superior to the old, resting on sound pathological, physiological and therapeutic principles, or that which is empirical in its character when recommended by sufficient clinical experience of the learned and skillful. He urges this on them with much freedom, because he has been one of them himself for more than forty years. As a member of the Maine Legislature said when a bill affecting the interest of lumber men was up—"Mr. Speaker, these lumber men are the greatest set of scoundrels on the face of the earth; I know them well; I was one of them myself for more than forty years." History does not record whether this renowned legislator had mended his morals, but, Mr. President, your reporter hopes that in the practice of his profession, as in all things else, he has had due regard to the scriptural injunction, "prove all things, and hold fast to that which is good."

And if, with Divine assistance, we endeavor to follow faithfully this cardinal injunction of holy writ, we shall attain here to an honorable position in our most humane profession, and at the last receive that most glorious of all plaudits, "well done, good and faithful servant."

THE
Practical Bearing of Recent Advances
IN
Cerebral Localization and Cerebral Thermometry.

By WILLIAM C. DABNEY, M. D., Charlottesville, Va.

When, in 1870, Fritz and Hitzig, in Germany, and Ferrier, in England, first announced that different convolutions in the brain were the centres for movements of different muscles, or the centres for the reception of different sensations, their statements were received with doubt and distrust by many experimental physiologists, and by the great majority of practical physicians. Little by little, however, evidence has been accumulating, proving the correctness of many of their statements; and the doctrine of cerebral localizations has now an established place in physiology, and, like nearly all physiological discoveries, it is leading to practical results.

Nor are we indebted solely to the teaching of physiological experiments for the advance in our knowledge of the localization of functions in the brain. MM. Charcot and Petres, and other observers, have brought forward a large amount of evidence, derived from *post mortem* examinations, of the truth of this doctrine.

I shall try to show in the present paper (which I shall make as brief as possible) *the influence which these discoveries have had, and are likely to have, on the operation of trepanning.*

I do not propose to go into any extended discussion of the *pros* and *cons* of the operation of trepanning itself. Gross, Sr., who is probably more generally followed in this country than any other surgical writer, states that the operation is nothing like so dangerous as is generally supposed—death

in most cases being due to the gravity of the accident or injury for which the operation is resorted to. In a very large proportion of cases, the situation of the injury for which the trephine is used is perfectly apparent; but there are a considerable number of cases, generally those in which grave cerebral symptoms come on some time after the receipt of injury, in which doubt exists as to the part of the cerebral mass involved. These are just the cases in which the recent advances in our knowledge of localization of function in the brain will prove, and, indeed, has already proved, of directly practical value. Cases to which I will refer in detail a little further on will illustrate this.

Two questions present themselves just here:

(1) What portions of the brain preside over, or are connected with different movements, etc.?

(2) With what part of the cranial wall do these motor and sensory centres in the brain correspond?

Many years ago, the late Dr. Broca, of Paris, as a result of a careful *post mortem* examination of the brains of persons who had suffered from aphasia during life, located the centre of articulate language in the lower part of the third left frontal convolution. A number of cases reported since by Dr. Broca and other observers in different parts of the world have established the seat of articulate language beyond question.

It was not until 1870, however, that any further advances were made in this direction. Since then, the centres of movement for the upper and lower limbs and face have been definitely settled upon.

The following *résumé* is given by MM. Charcot and Petres at the conclusion of a very valuable paper published by them in the *Revue Mensuelle de Médecine et de Chirurgie* for January, 1877.

1. The cortex of the human brain is not functionally homologous; one part only is related to the exercise of voluntary movements. This region, which may be called the cortical motor zone, comprehends the para-central lobule, the ascending frontal and parietal convolutions and probably also the bases of the frontal convolutions.

2. All cortical lesions, whatever their extent, situated outside the motor zone are latent as regards affections of motility; that is to say, they do not cause either paralysis or convulsions. Neither do they determine secondary degeneration of the spinal cord.

3. On the contrary, destructive lesions, even of the most limited character, affecting the motor zone either directly or indirectly, necessarily cause affections of voluntary motor power.

4. If the lesion be sudden—if at one blow a large extent of the cortical motor zone is destroyed, it gives rise to a sudden hemiplegia with flaccidity, and accompanied at a later period with secondary degenerations of the

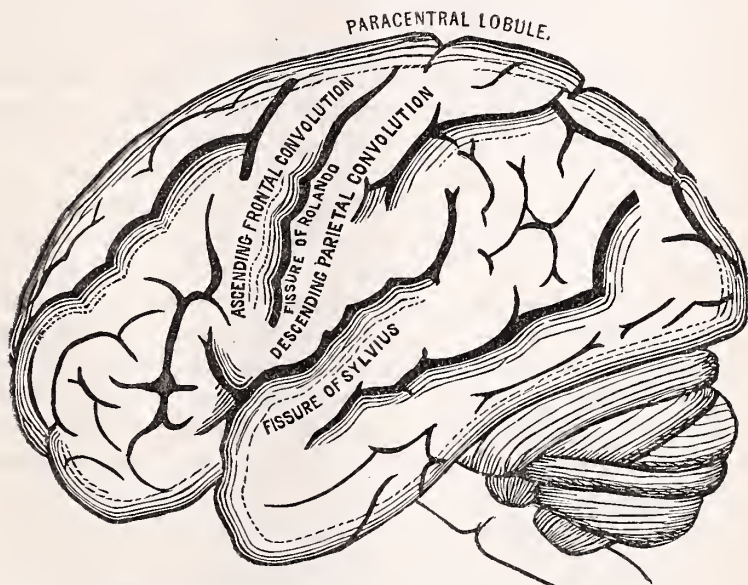
spinal cord, and late rigidity of the paralyzed muscles, completely resembling common central hemiplegia.

5. If the lesion be limited to a circumscribed area in the cortical motor zone, it gives rise to monoplegia (suppression of function), or to convulsions of the kind described as partial epilepsy (phenomena of irritation). After a certain time, limited destructive lesions of the motor zone determine a secondary degeneration which descends along the *crus cerebri* and *medulla oblongata* to the lateral column of the opposite side of the spinal cord.

6. The study of paralysis and convulsions of cortical origin shows that the motor centres of the opposite limbs are situated in the para-central lobule and upper two-thirds of the descending convolutions; and that the centres of the movements of the lower facial region are situated in the lower third of the ascending convolutions in the neighborhood of the fissure of Sylvius.

7. It is very probable that the centre for the individual movements of the upper limbs is situated in the middle third of the ascending frontal convolution of the opposite side.

8. Lastly, we do not yet know the centres for the movements of the neck the eyes or the eyelids.



In the above figures, the broad dark lines are the fissures.

The fissure of Sylvius and fissure of Rolando are marked. I have also marked the names on the ascending frontal, and ascending parietal convolutions, and the paracentral lobule.

Two of the statements made in this *résumé* require to be modified. The first is that "all cortical lesions, whatever their extent, situated outside the motor zone, are latent as regards affections of motility." In the vast ma-

majority of cases this is true; yet it is rendered almost certain from autopsies made by perfectly competent observers that "affections of motility" are occasionally observed as a result of injury to other portions of the cerebral cortex than those where the motor centres are situated. It is well known that Dr. Brown-Séquard withholds his consent from the doctrine of cerebral localizations, and even denies that each hemisphere of the cerebrum is in connection with the opposite side of the body. He has collected quite a number of cases in which lesion of one hemisphere was followed by paralysis of the same side.

It is only very recently that any explanation has been found for these cases, and it is with respect to this explanation that a second statement of MM. Charcot and Petres requires modification. They say that destructive lesions of the motor zone cause a secondary degeneration "which descends along the crus cerebri and medulla oblongata to the lateral column of the opposite side of the spinal cord." This was written in 1877. Since then, a careful study has been made by Flechsig of the decussation of the motor fibres in the medulla. I have not had access to the original article of Flechsig, but he is freely quoted by Charcot in his lectures before the Faculty of Medicine of Paris during the past year. He found that decussation occurred in three forms.

In the first (which is the most common, comprising 75 per cent.), there is a symmetrical semi-decussation, each pyramid furnishing a direct fasciculus and a crossed fasciculus. In the great majority of cases, from 91 to 97 per cent. of the fibres passed in the crossed fasciculus; but occasionally this proportion is reversed.

In the second form, there was complete decussation on both sides.

In the third form, there is complete decussation on one side, and partial on the other.

It would be extremely interesting from a practical point of view to know in what proportion of cases the decussation took place to a slight extent only, but nothing is said on this point. The cases thus far reported *on good authority* in which the paralysis and brain lesion were on the same side are not numerous, relatively speaking, and I think they may be disregarded when the localization of a cerebral lesion is under consideration with reference to trepanning.

Dr. Lucas-Championnière states in a few words the parts which should be exposed by the trephine in certain paralyses:

Lower Limb.—Upper end of the ascending parietal convolution.

Upper and Lower Limbs.—Upper end of the ascending frontal and parietal convolutions and the part connecting them.

Upper Limb only.—Middle part of the ascending frontal convolution.

Upper Limb and Aphasia.—Inferior part of the ascending frontal and lower part of the third frontal convolution.

Facial Paralysis.—Lower third of the ascending frontal convolution.

Aphasia.—Foot of the third frontal convolution.

We come, in the next place, to consider with what part of the cranial wall do these motor centres correspond?

We have seen that the cortical motor centres lie in the ascending frontal and parietal convolutions for the most part, and it will be remembered that these convolutions lie parallel with each other, and are separated by the fissure of Rolando. The connecting mass which lies just at the upper end of the Rolandic fissure, and at the top of the cerebral hemisphere, is known as the paracentral lobule.

To determine the situation of the fissure of Rolando, M. Lucas Chapiionnière gives the following directions: The upper end of the fissure is located near the middle line of the head and 55 millimetres behind the bregma (about $2\frac{1}{4}$ inches).

To find a point corresponding with the lower end of the fissure of Rolando, draw a line directly backwards from the external orbital apophysis 7 centimetres (about $2\frac{3}{4}$ inches) in length. From the outer end of this line, draw a perpendicular line upwards 3 centimetres (about $1\frac{1}{8}$ inches). The upper end of this perpendicular line corresponds with the lower end of the fissure of Rolando, and a line connecting the point corresponding with the upper and lower ends will lie over the fissure.

It is evident, then, that if there exist a monoplegia of the lower limb, it would reasonably be inferred that "the lesion was situated at the upper end of the ascending convolutions, especially the parietal," and the crown of the trephine should be placed at the upper part of the Rolandic line.

If both arm and leg were paralyzed, the upper end of both ascending convolutions and the paracentral lobule would probably be involved, and the crown of the trephine should be applied a little further forward and a shade lower down than in the preceding case.

If the upper limb only was paralyzed, the lesion would be near the middle and a little in front of the Rolandic line, and the trephine should be applied accordingly.

In facial paralysis, the lower part of the ascending frontal is involved, and the trephine should be applied at the lower end of the Rolandic line, and a little in front of it. In case of simple aphasia, the crown should be applied below and in front of the lower end of the line.

It is thus sufficiently easy to locate the point at which the trephine should be applied, provided the case is one which would probably be relieved by the operation.

As I have stated in a previous part of this paper, the seat of injury can

usually be determined without resorting to cerebral localizations; but occasionally cases occur in which the inner table of the skull is broken without any corresponding injury of the external table. Twenty such cases are recorded in the *Medical and Surgical History of the War*. It is possible also that fractures by contre-coup might cause a lesion on the opposite side from the external injury. Occasionally also the seat of an abscess might be thus determined. Under any circumstances, it is not likely that a knowledge of cerebral localizations will often be called into requisition by practical surgeons; but that it will furnish valuable indications occasionally, admits of no doubt.

The first case in which the seat of lesion was determined by cerebral localizations was one of aphasia operated on by Broca in 1866. I have not seen the details of the operation reported, but it is referred to by M. Lucas-Championnière as a successful case.

The second case which occurred in M. Lucas-Championnière's own practice is reported in detail in his little book entitled *La Trépanation Guidée par les Localisations Cerebrales*. The patient—a young man—was brought to the Lariboisière Hospital in a state of profound coma. No external injury could be found. This coma continued for four days, and was succeeded by generalized convulsions of the whole body, except the right hand and forearm, which was completely paralyzed. The chief injury was therefore located in the centre for the upper limb in the left cerebral hemisphere. An internal fracture was found, one of the little pieces of bone having been separated and driven into the membranes. The fragments were removed; the epileptic attacks rapidly lessened in number and severity; the paralysis of the arm disappeared, and the patient made a good recovery.

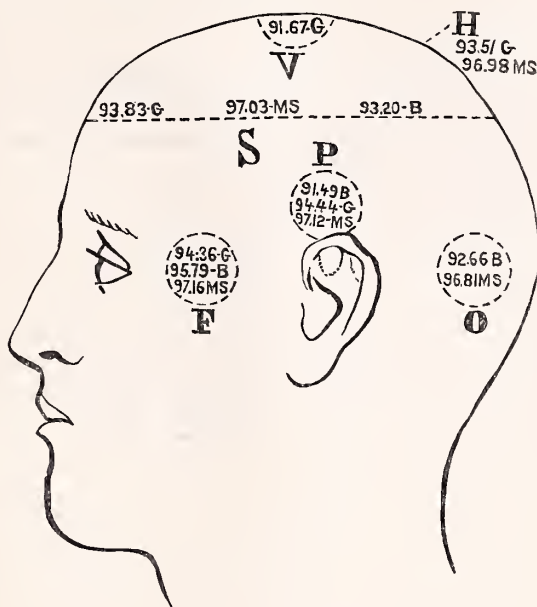
In Marvand's case, which occurred in July, 1875, a young man, 18 years old, was struck on the left side of the head with a piece of iron. He lost consciousness a short time afterwards, and after consciousness returned, there was found to be a right hemiplegia. There was a horizontal fissure below the situation of the motor centres, and the trephine was applied at some distance above the fissure—too far above as it was found, for no relief was obtained. It was again applied a little lower down, and a number of fragments of the inner table removed. The patient recovered the use of his arm and leg immediately, and made a good recovery.

Another case—the last to which I shall refer in this paper—was reported to the Académie de Médecine by M. Terrillon. A man, 19 years old, received a wound with a bayonet on the left side of the head about three centimetres long and nine centimetres above the external auditory canal, and a little back of a line running vertically upwards from the auditory opening. The speech became embarrassed, and the right hand enfeebled, ten days after the accident. Nineteen days after the accident, the trephine

was applied at the upper part of the wound, and three large fragments and a number of smaller ones, which were irritating the membranes were removed. A small quantity of pus was discharged, and there was an immediate amelioration in the symptoms, and subsequently entire recovery.

A number of other cases have been reported where the surgeon has been guided by cerebral localizations to the point at which to apply the trephine.

A very animated discussion on the subject occurred at the meetings of the Société de Chirurgie in December, 1877. M. Tillaux stated that he agreed in the main with M. Gosselin in the opinion that in primary lesions but little practical good would result from cerebral localizations. M. Perin expressed a similar opinion. Both, however, thought that they might be utilized to locate secondary lesions.



Copy of the diagrams of Drs. Gray and Seguin.

B.—Figures given by Prof. Broca, of Paris.

G.—Figures given by Dr. L. C. Gray, of Brooklyn.

M S.—Figures given by Dr. Maragliano and Seppilli, Reggio, Italy.

F.—Frontal Station.

P.—Parietal Station.

O.—Occipital Station.

V.—Vertex Station.

H.—Enteri Head.

S.—Whole side of Head.

Drs. Maragliano and Seppilli made their observations in hot weather; Drs. Broca and Gray in cold; hence the discrepancies in the averages.

The *London Lancet*, for July 7th, 1877, after commenting on the cases of Lucas-Championnière, Proust and Terrillon, and Broca expresses surprise that English surgeons who first mapped out the brain, should not have seen

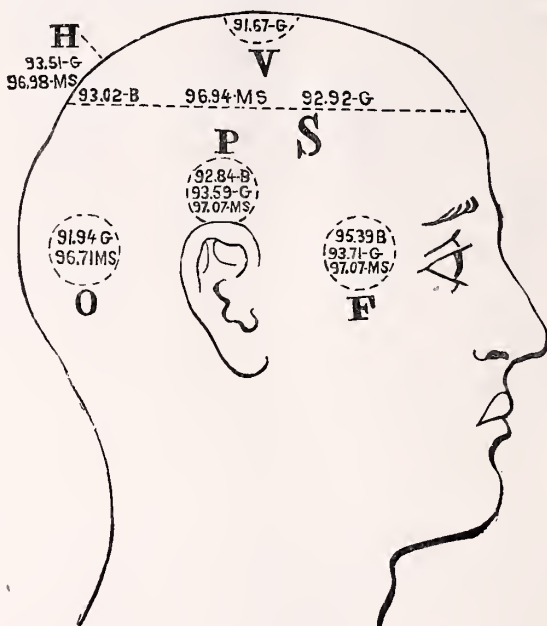
its practical bearing, and "trusts that the subject may be patiently investigated by the younger surgeons."

I shall not consider here the indications to be drawn from troubles of sensation or the special senses. Their centres have not been located with sufficient certainty to lead to practical results.

Perhaps I should have made some reference to the mode in which cortical are to be distinguished from central lesions.

In the former, it is common to find one limb or even one group of muscles affected first and others subsequently involved. Dr. Maragliano, who has devoted a good deal of attention to this subject, and whose opportunities for study are excellent, says that in many cases consciousness is not lost, and when it is, it is not at the very commencement of the attack if it be one of convulsions.

Lesions limited to the motor zone rarely cause anæsthesia; and Callender called attention to the frequent occurrence of a fixed and intense pain at some part of the cranium, which could probably be caused even when not present originally by a gentle tap on the skull with the point of the finger.



[See notes on preceding page.]

The motor centres in the brain, however, occupy a comparatively small portion, and many cases occur in which they are not involved by the lesion. Now, have we any way of determining the seat of trouble in these cases? We have, unquestionably, I think, in cerebral thermometry a means of determining the situation of lesions of the greatest value.

Already the seat of tumors of the brain has been determined several times by Drs. Gray, Mills and others; and Dr. Mary Putnam Jacobi has reported a case of tubercular meningitis whose seat was determined in a similar manner.

In a letter recently received from my friend, Dr. Gray, after referring to other cases, he mentions one which has recently come under his own observation, of middle ear trouble, followed by coma and death, in which the rise of temperature above the diseased ear was very marked.

I will not prolong this paper by giving a detailed account of any of these cases. Those to which I have referred would not have been suitable cases for the trephine at any rate; but I believe cerebral thermometry has a practical future before it, especially in locating collections of pus. Of course the *nature* of the cerebral affection must be determined mainly on other grounds.

There is one other point which should be remembered when practising cerebral thermometry. Broca, Maraglioni and Seppilli, Gray and Bert have found that the temperature is different at different parts of the healthy skull. The accompanying figures which were copied from Dr. Gray's drawings by Mr. Robert Nelson, of Charlottesville, show these differences very accurately. You will observe that the left side at all points shows a rather higher temperature than the right.

There can scarcely be a reasonable doubt, I think, that over a localized collection of pus or an inflamed spot there would be a very marked rise of temperature, and, indeed, the cases to which we have already referred place this fact beyond all question.

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VOLUNTEER PAPER.

SOME REMARKS

ABOUT A

Common Functional Eye Trouble.

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Mr. President and Gentlemen:---In selecting as the subject of a paper the common trouble of *weak eyes*, or asthenopia, as it is technically called, I trust I will not be imposing on the good nature of this assemblage by a rehash of a worn-out topic. My excuse for this paper is the large percentage of cases of this trouble I have met with during the past year in my practice, thinking that perhaps a few remarks on their symptoms, causations, etc., might help some of my professional brethren to recognize such when they encounter them, and take proper measures to discover the cause and give relief.

Symptoms.—Such patients complain that they cannot use their eyes for any length of time without discomfort, that the print becomes blurred and indistinct, and that in spite of every care and prolonged rest of the eyes, they do not seem to improve. With some, any continuous effort at reading, writing or close work of any kind causes, not only discomfort in the eyes and blurred vision, but also pain in the forehead, with occasionally vertigo, nausea and vomiting. Sometimes with or without these latter symptoms, we see blood-shot eyes, red eyelids, and intolerance of bright light—particularly artificial light—showing irritation of the deeper structures of the eye, the retina and nerve.

Usually such cases have suffered some time before applying for relief; and when they do so, the usual treatment is some slight astringent, tonics and the advice to rest the eyes, under the impression that impaired health or overwork is the cause. After some continuance of this treatment, the patient recommences the use of the eyes only to find they are in a short time as badly off as before.

Both patient and physician are thus frequently discouraged, and in consequence, the old idea that asthenopia was incurable has not yet been entirely done away with. During the past year I have been consulted by 87 cases of asthenopia; 84 at my private office among 296 eye patients, and 3 at the Richmond Eye, Ear and Throat Dispensary among 270 eye patients; a percentage in private practice of nearly 28 per cent., and in dispensary work of only a little over 3 per cent.—figures which seem to demonstrate the almost perfect immunity of the lower classes against such troubles. *Asthenopia* would seem, therefore, to belong to educated people, and especially to those who use their eyes much in reading, writing, close study, etc.

Only one watchmaker, one printer, and three sewing women were in the above number of 87; the balance being school children, students, teachers, book-keepers and professional men and studious women.

The ages of these patients ranged from 7 to 67 years of age; two were under 10 years; thirty between 10 and 20; twenty-six between 20 and 30; eighteen between 30 and 40; eleven over 40. These figures would indicate a greater tendency to asthenopia during school and college life than afterwards, fifty-eight being under 30 years of age, and thirty-two under 20.

This disorder of weak eyes or asthenopia is, as a rule, due to some impairment of the normal relations between two very important functions of the eye, which must work in perfect accord to allow of comfortable vision, viz., the accommodation and the convergence—the *accommodation* being the power the eye possesses of changing its focus for different distances; the *convergence*, the ability to keep both visual axes fixed upon the object accommodated for. Any disturbance in the normal relations of these two muscular functions will result in fatigue of the eyes with symptoms of asthenopia, from feebleness of the function that is wanting in power.

The eye is a hollow globe or sphere, lined posteriorly by the retina, which receives the image of the object looked at. The axis of this sphere from apex of cornea to retina is about eleven lines. The interior of the eye is filled by what is called the *dioptric apparatus*, made up of the refractive media, viz., the cornea, aqueous humor, lens, and vitreous humor, which form the image on the retina by bringing the rays from the object to an exact focus at the back of the eyes. The focus of this dioptric apparatus is usually fixed for the farthest point of distinct vision, viz., *infinity* when the eye is in repose. *Infinity* is any point at or beyond which any object being

placed, the rays from that object will fall parallel to each other on the eye.

Hence, when an eye has its retina situated at the focus of its dioptric apparatus, or if its farthest point of distinct vision when in repose is at infinity, we call it a normal or *emmetropic eye*, and this is what is meant by the "state of refraction" of the eye. When such an eye looks at any object closer than infinity, or when the rays from the object fall upon the eyes no longer parallel but diverging from one another, it can no longer remain in repose; it must become active, and change its focus to increase its refraction, so that the object will still be imaged upon the retina. In other words, it must accommodate itself and its focus to the distance of the object; and this it does in altering the convexity of the crystalline lens by contracting the ciliary muscle which surrounds the lens; and this power is what is meant by the *accommodation*.

In doing this, as the object approaches the eye, the eyes *converge* more and more towards each other, keeping pace with the accommodation until the nearest point is reached at which distinct vision is possible. The distance between this nearest point and the farthest point of vision represents the *range* of the accommodation, and the convergence must work all the time in unison with the latter, as both functions are called upon for an equal amount of labor.

The convergence is performed by the internal straight muscles of the eyeball, just as accommodation is performed by the ciliary muscle.

Asthenopia, then, is impairment of muscular action in one or other of these muscles, or is a disturbance of the normal relations between the internal recti and the ciliary muscle.

Either or both of these agents may be at fault in producing the weak eyes complained of, and this can result from different causes.

Causes.—General bodily weakness or want of tone about the whole muscular and nervous systems can produce it, as we see after typhoid fever, confinement, diphtheria, etc. Various nervous disorders can cause it by their direct or reflex action upon these muscles, as in brain or spinal, and in uterine troubles. But the most frequent cause is to be found in *errors of refraction*, which are deviations from the standard taken for a normal or emmetropic eye.

When the disordered visual function is due to trouble of the ciliary muscle, it is called *accommodative asthenopia*; when to trouble of the internal recti, *muscular asthenopia*.

In most cases it is easy to determine where the fault lies; in some it is exceedingly difficult to say to which side lies the preponderance of power. We frequently meet with cases where the most careful examination of the eye gives only negative results. We find nothing at fault. Every part of the eye seems to do its work, there is no apparent change, and still the pa-

tient gives the history of asthenopia. These are obscure cases due to some reflex nerve influence—in men, difficult to locate; in women, generally due to some uterine disorder. This form has been called *hysterical kopiopia*, *neurasthenic asthenopia*, etc. It simulates very closely accommodative asthenopia due to long sight (*hyperopia*), but there is no long sight, and no improvement from convex glasses.

Its symptoms, according to Abadie, Förstler, Freund, Swanzy and others, are as follows: Visual disturbance, dull periodic pains in eyes, radiating sometimes to nose, forehead and cheek, some intolerance of bright light and lachrymation; these phenomena are irregularly excited by fatigue, moral emotions, work, bright light, etc. Sometimes a point sensitive to pressure is found over the last cervical or first dorsal pair of nerves. The uterine troubles that produce it are chronic metritis, ulcers of the neck, uterine and vaginal catarrh, displacements and difficult or arrested menstruation. The eye trouble seems to be a reflex disorder similar to derangements of the stomach met with in uterine diseases. But such subjects are rare compared to those due to errors of refraction.

I will briefly mention these deviations from the standard given for a normal or emmetropic eye, which we have defined as one which has its retina situated exactly at the focus of its dioptric or refractive apparatus when in a state of repose; or in other words, whose farthest point of distinct vision is at infinity: 1st. When the focus of the dioptric apparatus is *behind* instead of at the retina, from the eyeball being too short—less than 11 lines—in its antero-posterior axis, or from the dioptric apparatus being of lower refractive power than normal, we have *hyperopia* or longsightedness. Such an eye in a state of repose no longer sees objects clearly at infinity, but requires the aid of its accommodation to increase its refraction, so as to compensate for its defect, rendering the rays from the object convergent instead of parallel, and thereby bringing the object to a focus on the retina, which is inside the normal focus. The eye is therefore in constant action even when normal eyes are in repose, and the ciliary muscle has more than its usual share of work to perform. A convex glass of sufficient focal length to compensate for the defect in the refraction will relieve the muscle of this extra work, and focus distant objects on the retina.

2d. When the focus of the *dioptric apparatus* is in front of the retina from the eyeball being too long, and from the dioptric system being of higher refractive power than normal, we have nearsightedness or *myopia*. Such an eye cannot, like the long-sighted eye, correct its defect by its accommodation, because the latter is already relaxed to its uttermost when in repose; and it therefore can only bring objects at infinity to a focus on its retina by means of a concave glass, which renders the rays more divergent, and gives the dioptric system a longer focus.

3d. When the dioptric system has a different focus for different meridians, or when the radii of the curvatures of any of its refractive media differ, we have what is called *astigmatism*—an irregularity in the refraction due to these deviations from a spherical form.

Hyperopia, or long-sight, is a common congenital defect, due probably to an arrest of development of the eyeball; it may, however, afterwards change to emmetropia or normal, or even to myopia or nearsightedness.

The latter (*myopia*), is usually due to disease and softening of the coats of the eye, causing elongation of the eyeball, except in a small minority of cases due to increased refraction without elongation, to which probably the so-called second sight of old people is to be attributed. Consequently, nearly all near-sighted eyes are diseased organs, contrary to the popular ideas on this subject. *Astigmatism*, or irregular refraction, is usually congenital, though often acquired; and, in fact, very few eyes are altogether free from it, though it is, as a rule, not sufficiently marked to be annoying and require correction. In the 87 cases of asthenopia I have collected, 69 were accommodative asthenopia, or weak accommodation, 18 muscular asthenopia, or impaired convergence. In the 69 cases of accommodative asthenopia, the causes were as follows:

In 36 cases, hyperopia or long-sight equal in both eyes.

In 8 cases, astigmatism equal in both eyes.

In 13 cases, the refraction was different in the two eyes.

Of these, in 1 case, one eye was hyperopic, the other myopic.

In 2 cases, one eye was hyperopic, the other astigmatic.

In 2 cases, one eye was hyperopic, the other emmetropia.

In 1 case, one eye was myopic, the other astigmatic.

In 1 case, one eye was myopic, the other emmetropia.

In 5 cases, myopia different in both eyes.

In 1 case, hyperopia different in both eyes.

12 cases were emmetropic or normal in refraction.

Of these, 2 had spasm of accommodation with simulated myopia.

1 paresis of accommodation from diphtheria.

1 paresis of accommodation from debility after pneumonia.

2 paresis of accommodation from debility after confinement.

6, no assignable cause except hysterical asthenopia.

Seven of the cases of hyperopia had spasm of accommodation, causing an *apparent myopia*, instead of *hyperopia*. Six cases had periodic internal squint, and one suffered from diplopia, or double vision. Of the 18 cases of muscular asthenopia, I found—

In 8 cases myopia, or short-sight.

In 6 cases hyperopia, or long-sight.

In 2 cases emmetropia—no assignable cause for the weak convergence.

In 2 cases astigmatism unequal in both eyes.

Six of these cases were annoyed by double vision, and two had external squint.

The *complications* in the above cases, besides the spasm of accommodation, the internal and external squint, and the diplopia already mentioned, were blepharitis or inflamed eye lids in twenty-five, conjunctivitis in fourteen, and retinal congestion in eighteen cases. Thus we see, that in all but fourteen of the eighty-seven cases, some error of refraction was the active agent in disturbing the relations between the accommodation and convergence, and causing a want of harmony by necessitating abnormal work on the part of one or other of these functions. In the other fourteen, the trouble was due to deficient power in the ciliary or internal recti muscles, from various causes.

Hyperopia, or *long-sightedness*, given above as the most frequent cause of accommodative asthenopia—in thirty-six out of sixty-nine cases—produces this result by the constant and excessive demand it makes upon the ciliary muscle. As such eyes require an *effort* of the accommodation to focus distant objects upon the retina, unless the defect has been corrected by suitable glasses, their accommodation is overweighted or overstrained by *just the amount of the effort made for distance* when they are called upon for near vision; for, when accommodating for a near object, the ciliary muscle not only makes the *usual effort* made by the normal or emmetropic eye to focus that object, but also the *additional effort* required to overcome the defect of refraction. Hence, the muscle is handicapped or overweighted, and breaks down, with resulting symptoms of asthenopia.

The following case will exemplify this:

CASE 1.—“E. W., a young girl, eleven years of age, was brought to me by a physician in Richmond one year ago. Has had weak eyes some months. Cannot study her lessons without her eyes becoming painful and watery. Bright light—especially gas light—very annoying. Has frequent headaches, with nausea and vomiting. Her mother noticed they came on nearly always after prolonged application to her books. Eyes never red or inflamed; but are perfectly clear and normal in appearance. Vision was $\frac{2}{3}0$ —both eyes equal to the normal standard of perfect vision. Neither convex nor concave glasses improve it. Range of accommodation and convergence normal. As the history pointed to accommodative asthenopia, probably from long sight, I ordered a one per cent. solution of atropiæ sulphatis to be dropped in the eyes twice a day. Three days after, the examination of the eyes showed that $\frac{2}{2}0$, or normal distant vision, could only be obtained by using a thirty-inch convex glass; this proved the trouble to be as I suspected—due to a hyperopia of $\frac{1}{3}0$, which required a thirty-inch convex glass to correct it, and which heretofore she had hidden in correcting it by her accommodation. Here eyes, plus the glass were equal to emmetropic,

eyes; without it the ciliary muscles were overtaxed just the amount of the glass whenever she attempted near vision; and this overtaking of the muscles showed itself in the above symptoms. I ordered No. 30 to be worn constantly, and though at first irksome and annoying to the child, she soon accustomed herself to the spectacles, and was enabled to prosecute her studies without any return of the eye trouble or sick headache."

Sometimes, as in six of these cases, the convergence, in its effort to keep pace with the overworked accommodation (both being supplied by the third pair, and receiving the same amount of innervation), gives way first, and muscular asthenopia results, when prisms, either alone with their bases in, or in combination with a convex glass, generally do away with the discomfort; or, on the other hand, spasmodic contraction of the internal recti from the excessive innervation takes place, producing periodic internal squint, with or without diplopia, as in the following case:

CASE II.—"S. B., a young girl 11 years of age, who has suffered from weak eyes since she first began to go to school, was brought to my office last November. Difficulty of studying, especially by artificial light; eyes begin to ache, and she is obliged to suspend her work. At times left eye rolls in, and she looks quite cross-eyed. Has red lids and some conjunctivitis. Some months before, had been under Dr. Knapp's care in New York, who had ordered $+1\frac{1}{4}$ (14-inch convex glass) to be worn constantly. Had not followed his advice, and in consequence eyes still gave trouble. Vision was $\frac{2}{3}$; a 36-inch convex glass improves vision; a 24 makes it worse. Diagnosis—accommodative asthenopia, with periodic squint, from hyperopia or longsight. Finding by the ophthalmoscope that $+1\frac{1}{8}$ did not represent all the hyperopia, the greater part of it being latent or masked by her accommodation, I ordered a one per cent. solution of sulphate of atropia, to be used twice daily for several days, in order to thoroughly paralyze the ciliary muscle and reveal all the defective refraction. The examination then showed her hyperopia to be $\frac{1}{2}$; or, according to the new metrical system, 4.9 dioptrics; and more than $\frac{3}{4}$ of the defect was therefore corrected by her accommodation. The consequent strain upon the latter caused it to give trouble in close work, and the extra innervation of the internal recti caused the tendency to internal squint. I ordered her to resume the No. 14 given by Dr. Knapp, and wear them constantly until she could see better with them than without them, and then to change to No. 9 (or a 9-inch convex), to be in turn worn constantly. At present she is wearing No. 9 with comfort, and the consequent relief to her accommodation and convergence has done away with the tendency to strabismus; the blepharitis has disappeared and she can study without trouble."

This case also calls your attention to the fact that internal strabismus results from hyperopia. In fact, nearly all cases of internal squint are

attributable to this defect of refraction. Therefore cases of periodic squint can be cured by relaxing the accommodation by atropia, and correcting the defect of refraction, and in confirmed cases no operation should be performed without also correcting the hyperopia.

Astigmatism, or irregular refraction, causes asthenopia by the constant variation and irregularity of the demand upon the ciliary muscle to accommodate the eye for different objects or different parts of the same object in different meridians, which I will also exemplify by a case in point.

CASE III.—“Miss E. S., 12 years of age, suffers with pain in eyes whenever she applies herself to her studies, with the other manifestations of accommodative asthenopia, at times internal squint. $V = \frac{2}{5}\%$. I thought her longsighted, but spherical convex glasses gave very little improvement. I used atropia to paralyze accommodation, and found vision decrease to $\frac{6}{100}$. I tested her eyes for astigmatism, and discovered that with convex 16, she could see horizontal lines distinctly, but not vertical lines; while with convex 8 ($+\frac{1}{8}$), she could see vertical lines and not the horizontal ones. She therefore had hyperopic or longsighted astigmatism—the hyperopia being twice as great in the horizontal as in the vertical meridian. The proper glass to correct her defect of refraction was one that would correct the defect common to both meridians, viz.: a spherical glass of 16-inch focus, as she had a hyperopia of $\frac{1}{16}$ in each meridian; but in addition to this she required another correction of the additional hyperopia in the horizontal meridian so as to equalize the refraction of the eye, and make both meridians alike. This would have been accomplished by giving in combination with the ordinary convex $\frac{1}{16}$ a cylindrical convex lens of 16-inch focus, with its axis vertical; its axis being a plane surface without refractive power. This would increase the refraction in the horizontal meridian, and not alter it in the vertical meridian. The formula for such a glass is $+\frac{1}{16}s. + \frac{1}{16}c.$, axis 90° . Instead, however, of giving her the combined spherical and cylindrical lens, I only ordered the cylindrical lens $\frac{1}{16}c.$, with its axis vertical $\frac{1}{16}c.$, axis 90° , leaving the uniform hyperopia without correction, resolving if she still had trouble to give the compound glasses. Up to this time, nearly a year after, she has had no return of the asthenopia or of the squint. Here, then, I only equalized the refraction and took away the irregular and variable demand upon the ciliary muscle.”

Another of the causes given as productive of accommodative asthenopia is *unequal refraction in the two eyes*, which necessitates an unequal demand upon the accommodation of the two eyes, as they each require a different focus, and in the effort to work in unison, gradually impair one or other of these muscular functions of accommodation and convergence. For instance :

CASE IV.—“W. H. B., printer, 34 years of age, who has a great deal of reading to do in correcting proof-sheets, reading manuscripts, etc., complained that for some years his eyes had given him trouble, so as at times to incapacitate him for work. His eyelids were always red, and eyes became bloodshot on the slightest use, with feeling of burning, itching, and intolerance of light. Examination of the refraction of the eye showed *right eye* hyperopic or longsighted in a slight degree, requiring a 48-inch convex glass to correct the defect; and *left eye* hyperopic astigmatism or longsightedness of different degrees in the different meridians—in the vertical meridian $\frac{1}{3}$, and in the horizontal meridian $\frac{1}{18}$, or double what it was in the vertical. This eye, therefore, required a spherical 36 inch convex combined with a cylinder, also 36-inch convex with its axis vertical. Vision with these glasses, was then normal and equal in both eyes. A few weeks after getting his glasses, his red lids, inflamed eyes and discomfort in work had disappeared—merely from correcting the errors of refraction and equalizing the latter in both eyes.”

Another such case:

CASE V.—“A. Y., 11 years of age, has suffered with his eyes since he began to go to school. They became red and inflamed, with pain, and letters are blurred. Vision equal to $\frac{20}{200}$ left; $\frac{20}{80}$ right. Reads Jaeger No. 1 at four inches. A concave glass No. 15 makes vision on the left $\frac{20}{20}$, or normal. A concave No. 30 makes right $\frac{20}{20}$. With these glasses he reads Jaeger No. 1 at 12 inches.”—evidently myopia or nearsightedness, differing in the two eyes. Neither of parents nearsighted, but his father, who is emmetropic, has suffered from weak convergence, and now, at 42 years of age, is troubled with diplopia or double vision from right eye rolling out. His vision for distance is normal, and can read with comfort because he has no power of fusion, and sacrifices binocular vision. The boy has no trouble with his convergence. Ordered the glasses as above to be worn, and his symptoms of asthenopia disappeared.”

Both the above cases had accommodative asthenopia, due to the difference in the refraction of the two eyes, which were in consequence unequally taxed.

Again: In either hyperopic (longsighted), or in emmetropic (normal) eyes, the ciliary muscle, from constant use in near vision, can get into a state of constant contraction, or a spasmodic condition which increases the refraction so as to produce an apparent myopia or nearsightedness, with resulting symptoms similar to those of accommodative asthenopia.

CASE VI.—“C. A., civil engineer, 23 years of age, has had discomfort of eyes for some weeks. Decided pain when he attempts to work. Conjunctivitis, intolerance of light and lachrymation—one point in each eye, just over insertion of external rectus, especially painful. His father is very myopic. Is himself slightly so, he thinks. Vision was—left eye, $\frac{15}{20}$; right

eye, $\frac{1}{4}\frac{8}{5}$. Concave 48 ($\frac{1}{4}\frac{8}{8}$) gives left $\frac{1}{1}\frac{8}{8}$; concave 24 ($\frac{1}{2}\frac{1}{4}$) right $\frac{1}{1}\frac{8}{8}$. Retina cloudy, and optic nerve congested. Ordered solution of boracic acid locally. *Diagnosed*—accommodative asthenopia from unequal refraction in the two eyes, and ordered concave glasses to correct defect. Had to go to Baltimore on business, and whilst there consulted another oculist, who made very nearly the same diagnosis. He got his glasses and was seemingly relieved. A short while after, he returned to me with the symptoms intensified and myopia increased. Ordered atropia to be used locally. A week later tested the eyes and found concave glasses no longer improved vision, that he required a $+\frac{1}{2}\frac{1}{4}$ (24-inch convex) for the left eye, and a $+\frac{1}{4}\frac{1}{8}$ (48-inch convex) for the right eye, to restore normal distant vision. My error in diagnosis was made apparent by this discovery of hyperopia where previously had existed a simulated myopia, evidently the result of spasm of the ciliary muscle. By continuous atropinization for some weeks, and use of convex glasses, the symptoms gradually subsided and have not returned."

But this condition is very different from that of real myopia, due usually to elongation of the eyeball from disease of the deeper structures, which is a common cause of weak eyes, apart from its intrinsic disease, by producing muscular asthenopia or weak convergence, the demand upon the internal recti in converging such an elongated globe being beyond their power, and resulting in divergence of one of the eyes, instead of being fixed with its fellow upon the object; and sometimes either periodic or permanent external strabismus follows. When the deviation of the eye is constant, operation is very frequently called for because of the deformity of the double vision, but often this divergence is only just sufficient to cause disordered vision; without being itself apparent either to patient or physician, the cause of the eye trouble being attributed to something else, as in the following case:

CASE VII.—"A well-known gentleman of the legal profession of Richmond, 46 years of age, applied to me to know how long his optic nerves would serve him. He had been told by a distinguished medical gentleman, who had carefully examined his eyes with the ophthalmoscope, that he had chronic inflammation of the optic nerve, with probable tendency to hemorrhage. For several years he had a constant mist before his eyes when reading, and if he continued work long, it would be followed by acute pain in the eyes and inability to go on with his work. He was quite nearsighted, but had been advised not to use his glasses except when he absolutely needed them for distance. The treatment he had followed was directed to the control of his optic nerve disease, and he had been forbidden to use his eyes much. The ophthalmoscope showed his retina and disk quite congested; his myopia was $\frac{1}{2}$, or about 5 dioptrics, requiring a concave No. 7 to correct it, and his vision with his glasses was $\frac{2}{3}\frac{0}{0}$. A further examination revealed the cause of his trouble to be some impair-

ment of his convergence power, due to the strain upon his internal recti when using the eyes at close work; he had muscular asthenopia. To this was attributable the mist before his eyes, his inability to read, and his fear of future blindness. A pair of concave glasses, to move his reading point to about 12 or 14 inches from his eyes, so as to relieve his internal recti by lessening the convergence, were ordered for constant use; and a similar pair, ground on weak prisms to exercise these muscles occasionally, effected a cure in a short time."

This case shows how one of the symptoms of this trouble, viz.: the retinal congestion, can be deceiving to the physician who uses the ophthalmoscope, and lead him to look for further signs of optic nerve disease and impending brain trouble, with consequent misdirected treatment.

Asthenopia, then, in both its forms, is attributable to impaired and unnatural muscular action of the ciliary and internal recti muscles, consequent upon *defective refraction*. From this results fatigue, which produces active congestion whilst the effort is kept up, and is followed by passive congestion, from which we have the red lids, the inflamed conjunctiva, and the congested nerve and retina. We will frequently find that cases of blepharitis and conjunctivitis that have persistently resisted treatment, or constantly recurred, are the results of asthenopia. The treatment of this trouble should always be directed to harmonizing the accommodation and convergence by correcting any error of refraction with suitable glasses, so that the ciliary and internal recti muscles will work in unison. This, in a majority of instances, will effect a cure; but we sometimes meet cases where this is not sufficient, and we must train such eyes by judicious exercise until they recover their working power. The usual prescription of physicians with these patients is *rest* for the eyes and tonics internally. The tonics are often an important element in the treatment, especially in certain cases of debility; but rest is the most pernicious advice that could be given. A muscle which fails in its work for want of proper and well regulated exercise, will not become normal in action by doing nothing. All muscles are better off, and become more useful servants, by being properly and regularly trained without overtaxing them. As long as the *rest* is kept up there is no discomfort, but as soon as the muscle is put to work again, discomfort and the evils that first manifested themselves recur. Many a young man, ambitious to study, has been debarred from a collegiate education by this mistaken advice; numbers desirous of devoting themselves to some profession to which their inclinations and talents led them, have been condemned to a farm life or other uncongenial occupation. Horace Greeley's advice, "Go west, young man," has been given again and again to such patients by their attendant physicians, when the proper treatment would have enabled them to pursue their studies.

With your permission I will refer to one more case which exemplifies

these remarks, and shows the mode of properly exercising the eye when the correction of the error of refraction fails to effect a cure.

CASE VIII.—“A. M. S., a young man 22 years of age, applied for treatment in February last. Two years ago, in consequence of weak eyes, he was obliged to discontinue the study of law and go to farming by the advice of his physician. He has no enjoyment from books, though fond of reading; cannot read ten minutes without his eyes becoming inflamed and painful. Vision was $\frac{18}{8}$ —better than the average. Very slight insufficiency in convergence. Retina and optic nerve markedly congested. Atropine mydriasis showed very low degree of hyperopia, equal to $+\frac{1}{8}$, or a 48-inch convex glass. I gave him this glass to use, advised abstinence from reading by artificial light, and ordered strychnine sulphate, $\frac{1}{20}$ grain, *ter die*, internally. He returned in April with no improvement. As he said he had been more comfortable when using atropia locally, I tried atropine mydriasis for six weeks or more, allowing him to read with a 14-inch convex glass to compensate for the paralysis of the accommodation. At the same time he used iron and valerianate of zinc internally, and counter-irritation behind the ears. In July he had made very little progress. I then adopted the system, the rules of which were first laid down by Dr. Ezra Dyer, of Pittsburg, and hence sometimes called “Dyerizing,” of working his ciliary muscles by a regular graded series of exercises. After assuring him that he had no disease of the eyes, that they were as good as anyone’s, that his whole trouble was attributable to a purely muscular defect, which properly regulated exercise would correct, I impressed upon him the necessity of doing just what I told him and no more. He found he could read *five* minutes without discomfort; ten minutes’ reading gave pain. Starting with this time (five minutes), he was told to read regularly three times a day—at first a half hour after breakfast, the second at noon, the third just before sundown, and always with his glasses. The first day, he was to read only five minutes each time; the second, five and a half minutes each time; the third day, six minutes, and so on, increasing one-half minute each day, until he could read ten minutes with comfort. No other use of the eyes was allowed. When he could read ten minutes, he was allowed to increase one minute each day, until he reached thirty minutes three times a day. After that he increased two minutes each day, until one hour and a half was reached. After reaching thirty minutes he varied his exercise by reading or writing during his periods of work, but not exceeding the limit laid down. At times during the exercise, he had some slight discomfort, but it did not last from one period of reading to the next, and he was therefore not obliged to go back and begin over. He also, after the exercise, used a cold douche to the closed lids and rubbed tincture of aconite over the brow. The result was that in October he was enabled to accept a position as teacher of Latin in a prominent school.”

The instructions I gave him are almost *verbatim* those of Dr. Dyer, and I have invariably had recourse to them when the correction of the optical defect and proper treatment of any constitutional cause failed to bring about a good result. In the eighty-seven cases enumerated, only two have had little or no result, and I am not sure that these two followed the prescribed treatment.

A careful and systematic examination of the eyes, based upon a complete knowledge of what is required in the visual functions, is absolutely necessary to a clear understanding of such cases; and after correcting any defect in the refraction by proper glasses, and treating any accompanying affection that would have any bearing upon the eye trouble, systematic and regulated use of the eyes should be enjoined.

Very often the apparent state of refraction of the eye is deceptive, as what at first seems to be a myopic eye may be in reality emmetropic or hyperopic; or an apparently emmetropic eye may be, in fact, hyperopic. The true state of refraction may be diagnosed by the use of the ophthalmoscope by those very expert in its use, or by paralyzing the accommodation with atropine, which does away with the element calculated to deceive as to the refraction.

One word more and I will have finished. This is in regard to the common prejudice against the use of glasses and the popular ideas about their being harmful, that they wear out the eyes, &c. Unsuitable glasses of course produce fatigue of the eyes, but suitable glasses once obtained, are most beneficial by doing away with the error of refraction, and this is more especially the case in childhood, when these very errors do most harm to the eye. I always find that the parents object to the child wearing spectacles, and that the friends ridicule the child if he or she does wear them, and this results from the mistaken idea about their doing harm.

Nearsighted children cannot wear glasses too soon, as they frequently arrest the further development of the disease which causes the short sight, and prevent other trouble; and the importance of this fact ought to be impressed upon the parents of such children. But they must not buy glasses at random; they should always go to an ophthalmic surgeon and have the eyes properly examined and the spectacles prescribed, as they go to a physician for any other prescription. Going to an optician's to buy glasses without proper advice, is like going to a druggist's to get medicine for some obscure ailment without consulting the physician. In these days, when errors of refraction are so common, when more than half or three-fourths of the educated classes and their children are victims of these troubles, it is time to do away with the old time prejudices about glasses, and also adopt a rational method of having them properly applied. The slight expense incidental to the latter is more than compensated for by the invariable good that results.

VOLUNTEER PAPER.

THE STATUS OF THE Medical Profession of Virginia.

By THOS. J. RIDDELL, M. D., RICHMOND, VA.

Mr. President and Fellows:—At the request of a number of my professional brethren, I propose to make a few practical remarks in relation to the medical profession of Virginia.

For the past few years I have taken no little interest in the *status* of the medical profession of my native State. The necessity of a law for the protection of the people of our State against imposters representing the medical profession, cannot be denied by intelligent and enlightened citizens; and inasmuch as I have been using my best efforts for several years trying to prevail on the Legislature to enact a law to regulate the practice of medicine in our State, I deem it proper upon this occasion to make a few remarks in regard to this important subject.

It is, indeed, passing strange, yet nevertheless true, that Virginia, with all her glory and honor, and with her many illustrious sons, who have graced her legislative halls with wisdom and intelligence, has proved so manifestly indifferent to the petitions and appeals of the medical profession of the State, concerning a law to regulate the practise of medicine. I contend that it is the duty of every legislator to protect the interest of his constituency from fraud and imposition, and especially those who are ignorant and unable to protect themselves.

It is true that physicians can protect themselves, but they are the custodians of the health of the people; and it is their duty, so far as possible, to

protect the lives of the citizens, to expose deception, to denounce that which is not right and just, and to warn the people against whatever is dangerous and detrimental to their health and happiness.

Many States of the Union have long since taken necessary steps, and have enacted laws for the protection of the lives of their people against imposters; and in consequence of the law, numbers of empirics are forced to seek more inviting fields for the purpose of practising their nefarious and deceptive calling, under the *nom de plume* of *Doctor of Medicine*. Virginia extends them an invitation to come into her confines, and protects them under the sheltering *ægis* of statute law; for the sum of ten dollars, gives them permission and commission to practise medicine, and they are placed upon equal footing with any graduate of medicine—American or European. This is a palpable injustice to the people of Virginia—saying nothing about our medical schools. The lives of our people are exposed to imposters, and it is high time that wise and judicious legislation should be enacted in the premises.

Under the present law of our State, any vile miscreant, however degraded and ignorant, or any ignoramus, it matters not from whence he comes, can obtain a license as physician, to swing his sign to the breeze with the inscription, Dr. Jones or Dr. Smith, or Dr. Anybody else; and especially in a community where he is not known, the natural presumption is that he is a *bona fide* M. D. Hence the monstrous imposition upon the people in many sections of our State.

There are many intelligent citizens of Virginia who do not know that anybody can practise medicine in this State without a diploma. I have frequently met intelligent persons of my city who were very much surprised when I informed them that the law of our State allowed anybody to practise medicine irrespective of character or qualification; nevertheless, the law requires a bar-keeper to establish a good character before he can obtain license to vend his beverage, and I can but exclaim *O tempora, O mores!*

Now, if many of our most intelligent people are ignorant of the requirements of the law of Virginia for a physician to practise the profession of medicine, how much more so must be the ignorant and superstitious people of our State in regard to this matter? It is of the greatest importance that the people of our State should be protected. Every person who pretends to administer or practise medicine in this State is dubbed with the learned expression or title *Doctor*. He is presumed to be an M. D. in the true sense, for he is commissioned or licensed by the State for a consideration to practise medicine, and is a *de facto* doctor by virtue of this commission in the eyes of the law. But, strange to say, that, before a court of law where property is concerned, the testimony often of these self-constituted

doctors is not admissible as experts, because they are not learned in the profession of medicine; notwithstanding, however, these individuals have the legal right to practise on the lives of the people *ad libitum*.

It is evident that property, then, is held in higher estimation than the lives of the people, in Virginia, at least. In the different cities of our State we find but few of these empirics who have the glaring impudence to swing out their signs as doctors of medicine, because they are aware that the regular medical profession will not tolerate their ignorance and presumption, and that they will receive the rebuke and reprimand, which their stupendous ignorance so justly demands. But many of these imposters go into different sections of the State and there deceive and delude the people under the false title of physician.

These very imposters are being expelled from different States, in consequence of recent laws that have been enacted by Legislatures for the protection of their citizens. Within the past year the Medical Examining Board of the State of Illinois alone expelled several hundred bogus doctors. California has been even more rigid; and I might mention other States that have done good service to humanity, by requiring something of professional attainment on the part of those who undertake to practise medicine. The bogus Dr. Buchanan, of Philadelphia, who has been recently detected and punished—too mildly I fear—for his nefarious diploma business, is represented as having issued many thousand diplomas to men, many of whom were of questionable reputation. It is stated that his disciples are scattered throughout nearly every State in the Union; and Virginia says, come here; you shall have license to practise medicine, and shall be as equally protected as any physician in her confines, with John Buchanan's diploma, or without any diploma at all. What a generous old State!

Now, if other States had no law in regard to the qualifications of a physician like Virginia, then this man Buchanan, of course, would have continued his diploma mill, as any imposter could have practised medicine regardless of any fitness whatever in the United States with impunity; but fortunately, wise and judicious laws have been enacted by many States of the Union, and the people of these States are thus saved from fraud and imposition.

Is the Legislature of Virginia going to remain quiet and indifferent in reference to this matter, allowing imposters from everywhere to come and practise fraud and deception upon, especially, the ignorant people of the State? The future alone will determine the wisdom and good judgment of our next Legislature.

This evil should be remedied, and every physician who feels an interest in the profession, and has the welfare of the people at heart, should inform the public as to the great importance of protecting themselves against the

additional introduction of imposters or quack doctors into our State. The *people* should appeal to their representatives for protection in this matter. They should be informed and enlightened upon this subject, because they need light. And then they would demand of their law-makers the passage of a law for their benefit and interest, and it would not be long before the people of Virginia, as well as the medical profession, would hail with pride a law that has been long neglected, and one of which any State might justly feel proud.

In the fall of 1877, I presented a petition to the Legislature of Virginia, signed by upwards of sixty prominent physicians, setting forth the injustice done the people of Virginia, praying that a law be enacted for the protection of our people against empiricism and charlatanry, as well as right and justice to the medical schools of Virginia. I partially succeeded in my undertaking in having the bill passed the Senate of Virginia in January, 1879, by nearly a unanimous vote. The bill was then sent to the House of Delegates. I had, however, succeeded in enlisting the support of about thirty members, who promised to vote for it, and use their influence in its behalf. A few weeks afterwards the bill was called up, and, strange to say, many of the gentlemen who promised their support and influence were absent, and those who were present did not know that the bill had been called up, and expressed much surprise when I informed them of it. I was told, that when the bill came up before the House, some two or three members from the different sections of the State ridiculed the idea of the passage of the bill upon the ground that anybody had a right to practise medicine, and that it would be "class legislation" to pass a law to regulate the practise of medicine, etc.

I firmly believe had this bill received the proper support, or if any physician had been present to have explained the nature and meaning of it, demonstrating the fact that its object was for the interest of the people of Virginia, and not a *doctor's bill*, as some wish to call it, it would have unquestionably become a law.

The provisions of the proposed bill only required that every individual who attempted to practise any branch of the medical profession in this State should be compelled to show a diploma, and upon failing to show one from a legally authorized medical institution in good standing, the party should not be allowed to practise, under a heavy penalty.

The propriety of a medical examining board was also suggested, for those who felt competent to practise medicine without diplomas; and if they passed a successful examination before this board, then they should be granted a license to practise medicine.

I do not pretend to say that all graduates of even recognized medical institutions are competent physicians. The Faculties of the various medical

institutions should show no favoritism, and graduate only worthy and competent men, who will reflect credit upon themselves and honor upon the profession. I only asked the Legislature to pass a law requiring every person to show his diploma, from a legally authorized medical institution or college, and not an examination when this feature of the law was complied with; because after young gentlemen have obtained their degrees as doctors of medicine from medical institutions of this country and Europe, it could not be otherwise than a reflection upon the Faculty of any of the universities or colleges of medicine to require an additional examination. This proposed bill was not an *ex post facto*, nor retrospective, but was to be enforced from its passage. It did not effect those so-called doctors who were practising at the time.

It is evidently the duty of every member of the medical profession of our State to exert his best influence in sending proper representatives to our next Legislature, who will reflect the sentiments and best interest of the people; and not men who are afraid to vote for measures of a salutary character, because of offending possibly a few of their constituents (not the intelligent but ignorant), and thereby lessen their chances for legislative honors again. And physicians, who occasionally go to the Legislature, but few, I regret to say, seem to take very little interest in the wants of their profession—but soon become demagogues.

This is a subject which the people of Virginia should not neglect. It is of vital importance; and I believe that if the intelligent citizens of our State were properly informed and enlightened with reference to the statute law, allowing and commissioning any illiterate person to practise medicine in the State, they would implore protection from the Legislature. But in my humble judgment, the public are ignorant of this condition of things, and the inevitable consequence is imposition. Now, if the profession has the will and determination, and will exercise the proper influence in this matter, success will be ultimately achieved. Physicians in every section of the State, let me appeal to you. Should you not enlighten your respective communities on this subject; and then both the people and profession conjointly should demand of your representatives a passage of a law to regulate the practise of medicine.

The profession should go about this work with zeal and energy. We cannot afford to be lukewarm and indifferent, for all who have the interest of their noble calling at heart, must learn to labor and “be up and doing.” A few of the profession may be in comparative wealth and plenty, but that is no reason why they should not exercise their influence, and lend a helping hand in defending the rights of brother practitioners, who are not in their condition, and especially in elevating the standard of medical education and the dignity of our worthy profession in Virginia, and throughout the United States.

SUMMER COMPLAINT OF INFANTS.*

SUBJECT FOR DISCUSSION.

By request of the President, Dr. R. L. PAYNE, of Lexington, N. C., one of the two Fraternal Delegates present from the North Carolina Medical Society, opened the discussion.

Dr. R. L. PAYNE said he was sorry to be called upon to open the discussion to-day, because he came here as a fraternal delegate--not to talk, but to see and hear and learn. His practice has been, to a great extent, confined to his native town and the country around it, where we have plenty of fresh air and wholesome food; consequently, he has not had as much to do with cholera infantum as those of this body of physicians who are residents of the larger cities, where the hygienic surroundings are not so good.

In the few remarks he intends to make, he will not pretend to enter into the etiology and pathology of the disease, but will simply confine himself to the treatment which has generally been most successful in his practice. He has found calomel almost always of advantage in arresting both the vomiting and the diarrhœa, and he most frequently resorts to the old treatment when called early in the disease, viz.: small doses of calomel, acetate of lead, and prepared chalk, given every three or four hours; the application of sinapisms to the stomach—in fact over the whole abdomen—and the use of stimulants *pro re nata*. Sometimes he gives, instead of the first mentioned powders, small doses of calomel and the subnitrate of bismuth. A mixture of equal parts of lime water and sweet milk has often been of benefit in arresting the vomiting; but the remedy upon which he chiefly relies for the relief of this most distressing symptom (and which is well nigh a specific), is the bromide of potassium, given in mucilage of acacia. Ice in small particles, and frequently given, he has often seen do great service. The little patient must always have plenty of pure, fresh air, and all crude articles of diet must be prohibited. If the child is still at the mother's breast, the mother's milk (unless she be *enceinte*) affords the best nourishment; if weaned, he knew of nothing better than a concentrated

* The Recording Secretary has, in this report, tried to give a correct synopsis of the *ex tempore* remarks made by the several gentlemen who participated in the discussion.

beef-tea, given often in small quantities, and alternated with milk and lime water without sugar. Quinine has often been of service to him in these cases when the disease is modified by malaria; yet he does not hold to the opinion that malaria is the cause of the disease; if for no other reason, because cholera infantum is generally most prevalent, and most fatal too, just where the effects of malaria are least felt—he means in the heart of our great cities. When the diarrhœa becomes chronic, he knows of no better remedy than a mixture of equal parts of the aromatic syrup of galls and aromatic syrup of rhubarb. The disease has been with him often very troublesome, but seldom fatal.

Honorary Fellow Dr. ALBAN S. PAYNE, late of Fauquier county, was invited by the President to give his views on the subject. He said he thought his long residence and practice (thirty-six years) in one of the most mountainous and healthy sections of Virginia, *peculiarly* unfitted him from being able to throw any light on this interesting and important subject. He thought physicians practising in large and crowded cities, were the ones we might reasonably expect to furnish this Society with the largest amount of useful knowledge in regard to the pathology as well as to the successful treatment of cholera infantum. Yet he was not unmindful of the fact that the first several years of his own practice had been spent in a large and crowded city; and moreover, during the last thirty-six years of his practice, he had encountered many cases of cholera infantum. These cases were often cases sent to his section from the prominent cities of our common country. Coming often from a warmer climate to a colder, frequent relapses occurred, more especially in "*teething children*;" and these cases of *relapse* always proved themselves to be grave and serious. He thought the vomiting in cholera infantum peculiar and characteristic, and if he might be allowed to coin a word—being "spouted out" rather than vomited up. This he believed to be indicative of *irritation* about the upper portion of the spinal cord, produced probably by reflex action from the sympathetic nerves of the primæ viæ; and again often reflected back to the stomach and bowels from the spinal cord and lower portion or base of the brain. In such cases, in his opinion, we have three indications to meet: First. Either to prevent collapse; or, if we find the patient in a state of collapse, to rouse the energies of the system and to restore to the circulation its equilibrium. Second. To correct the morbid, acrid, acid secretions, and to render them normal and natural. Third. To rouse the secretory organs to a natural performance of their secretory functions.

To meet the first indication, in the early stages of the disease, he had found the simple, good, old-fashioned iced "mint julep" the most efficient remedy. This should be assisted by mustard plasters to the *nape* of the neck, the epigastrium, and to the ankles or wrists. In extreme cases he

uses the red pepper hot bath. The biliary secretion, in these cases, being always deficient, and since no reliance can ever be placed in permanent recovery of the patients until the specific biliary discharges show themselves, he either uses small oft repeated doses of calomel and prepared chalk, with powdered ginger, or what he has found very serviceable—hydrargyrum cum creta, with anodynes. He ignores the regular astringent remedies entirely. To meet the third indication, he gives the mono-bromide of camphor every two to four hours, until he produces sleep and the bowels are quieted. He has found this remedy not only useful in cholera infantum, but he prefers it to any of the preparations of opium for young children.

He did not know, until this evening, what was the subject for discussion. He has, therefore, given this subject no thought up to this time, as a preparation for his remarks. If continued until our next annual meeting, he will give the subject some consideration, and will be glad to contribute his *mite* to the general fund of information to be then elicited by discussion.

Dr. A. W. FONTAINE, of New Canton, Buckingham county, Va., had not come to the meeting prepared to make any premeditated or systematically arranged remarks on the "Summer Complaint of Children." He would confine what he had to say solely to the one particular complaint which, in his observation and experience, was at once the most frequent and the most fatal of all the infantile diseases of the summer months, namely—*cholera infantum*. The gentlemen preceding had spoken of this disease as almost peculiar to large towns and cities. True, a heated, over-crowded, vitiated atmosphere, in any locality, predisposes more than anything else, perhaps, to the disease; but, then, on the other hand, it is no stranger in comparatively healthy country locations, far removed from all that makes cities undesirable for summer residence. It would seem that in country places where cholera infantum exists at all, *malarial* troubles are more or less prevalent in some shape or another. Upon diligent inquiry among members from different parts of our State, this appears to be true of Virginia at least. Leaving out the large towns and cities, its greatest prevalence seems to be in the Eastern and Middle counties of Virginia—embracing those of Tide-water, and those next intervening between the Tide-water and what are called the Piedmont counties—just East of the Blue Ridge Mountains. So much for its geographical and climatic relations as concerns us in Virginia.

Dr. Fontaine would now speak of cholera infantum in relation to its *etiology*. To the best of his knowledge and belief, there are three potent factors in the causation of this disease—*heat, drought and dentition*. Heat and drought may be regarded as the predisposing causes; dentition as the most immediate and *exciting* cause. As far as the speaker's observation extended, the disease is seldom met with except during the early heats of

summer, and the later droughts of the same, say from the first of May to the middle of August. May and June appear to be the most prolific months of the year. Once only had this observer seen two cases of cholera infantum as late in the year as December; and those cases occurred in very recent years, and during an exceptionally warm spell for the time of the year.

Now, as its name implies, this is a disease of *infancy*. It may occur at any age, from three *months* to three *years*. In only one case had the speaker seen it in the sixth year of his patient's life, and that was during a very sickly summer, and the child was cutting its last molar teeth.

Speaking of teething reminded him of a significant fact in this regard, namely, that the eruption of all the teeth does not equally tend to produce the complaint. There are some, the eruption of which are more prone to excite the disease than others. The cutting of the so-called "stomach" and "eye" teeth seem to be the most potent in the production of the "complaint." The former appear to produce the greater gastric and intestinal distress; the latter are more apt to complicate these disturbances with nervous or *brain* troubles.

The *symptoms* of cholera infantum are as pathognomonic as those of cholera morbus or of Asiatic cholera. There are certain distinctive peculiarities which need only to be touched upon; which, upon once seen, are not easily forgotten, and cannot well mislead an attentive observer. The most striking symptoms are vomiting, *great thirst*, diarrhœa, griping, straining, retching, rapid emaciation, restlessness, with an anxious, pinched, pallid face, and glassy eyes which seldom wink, and rarely *completely close*, even during sleep, cool hands and feet, hot head and belly. When we see these signs and symptoms in a nursing infant in hot weather, and find on examination that the child is cutting *any* of its teeth, we need have little difficulty in making out a diagnosis.

The lateness of the hour, on this last evening of our present session, and the more valid reason that the speaker can throw no new light (from *post-mortem* examinations) upon the pathology of this disease, deters him from any attempt to elucidate any one regarding the import of the above-named symptoms by an account of morbid appearance after death. Therefore he would give a brief outline of the *treatment* which he has found to answer best, and would then yield the floor to those who could and should occupy the time of the Society to greater profit.

From what is known of the causes and symptoms of this great scourge of infantile humanity, the treatment would naturally be arranged under two principal heads—medical and dietetic or hygienic. Before going into any details of either, the speaker felt that he could not too earnestly impress this one idea upon his hearers: that, as far as the mere administration of drugs was concerned, it is far better *to do too little than attempt too much*.

And further, that should circumstances favor his own choice between keeping the little sufferers at home under unfavorable hygienic influences, and depending upon medicines for their relief, on the one hand; and, on the other, sending them away to greater altitudes, purer air and cooler nights, without any medicine whatever, he would gladly choose the latter. But where this, from any reason, is impracticable, something can and ought to be done by safe and proper medication; yet he believed still more could be accomplished by careful dieting, bathing, friction, exercise, and airing. The alvine discharges, when carefully consulted, nearly always give a clue to the remedy needed. But, unfortunately, the practitioner is met here in the beginning by a very formidable obstacle—the almost constant *retching* and *vomiting*; so that the question often is, not “what I would like best to give,” but “what will prove most tolerable to this rebellious stomach.” For the most part the dejections will be found to consist of curdled, undigested milk or food, with mucus, interspersed with specks or streaks of blood, and often watery and serous in character. The predominating color is *green*, especially of the mucus; sometimes it is of a slaty color, and always particularly offensive. There is a *conspicuous absence of biliary excretion*, and we naturally look to *mercury* for some help. Fortunately, some one of the preparations of this potent agent are better borne than almost any other, and seldom fails to improve this state of things. But before giving one dose of any medicine, it is our *duty* to examine the mouth of the child, cut down freely upon any and every tooth that is trying to escape through the swollen and tender gums, and thus remove at once the *pressure* which seems to give rise to manifold *irritations*—*direct* and *reflex*.

Of all the mercurials, none has proved more manageable or efficient than calomel. It may be given in many ways, and in various combinations to suit existing conditions. In robust cases, of recent origin, it may be given in almost heroic doses, and repeated until its effects are to be seen. In more weakly subjects, in whom the depressing, ravaging disease has had a good start, it is better to give it in very small doses, often repeated. In most of such cases its benefits may be greatly assisted by combination. A favorite one of the speaker is calomel, $\frac{1}{8}$ to $\frac{1}{4}$ grain; prepared chalk, 1 to 2 grains; Dover's powder, $\frac{1}{16}$ grain; ipecac, $\frac{1}{8}$ to $\frac{1}{4}$ grain, repeated every one, two or three hours until the “passages change.” When this has once been accomplished, other remedies *find their places*, which, previously, would prove intolerable to the stomach, or else pernicious in their general effects. Among the remedies which will then be found of great benefit, is lactopeptine, given in port or old blackberry wine (the older and less sweet the better), diluted with water. And when the discharges are very copious, thin and watery, so as scarcely to stain the diaper, some of the astringents are admissible, but must be given in *very minute* doses. One grain of acetate

of lead dissolved in one ounce of wine, or two fluid ounces of water ; or two grains of tannin in the same solution, may be given in *teaspoonful* doses every thirty or forty minutes, until the *drain is checked, but no longer*. Then these should be immediately followed by an appropriate dose of castor oil, spirits of turpentine and laudanum—say one drachm of the first, five drops of the second, and one or two of the third, according to the age. But all this presupposes that the stomach will bear the remedies. If it does not, some means of counter-irritation should be applied, and medicines, food and drink withheld until some degree of tolerance by the stomach is established. The *thirst* is so great that the poor babe will drink almost *anything* ; and so long as vomiting and purging continue, drinks should be withheld, and *crushed ice*, in small bits, given every few minutes. Still, often where medicine, food, and all ordinary drinks are rejected, some degree of tolerance and even comfort may be obtained by simple demulcents, such as gum acacia, slippery elm, tea (cold), sassafras pith in cold water, mint water, etc. Often has the speaker given, all day and night too, in teaspoon potions, a julep made of *peppermint* leaves steeped in a tumblerful of cold water, to which was added one or two teaspoonfuls of the best French brandy, and a little pure sugar, and that, too, with the best effect.

For nourishment, nothing excels chicken essence (made by boiling chicken—the fat being rejected—in water enough to cover it, until the meat readily leaves the bones ; the meat then to be taken out, wrapped in a muslin cloth, and squeezed until all the juice is returned to the water, the meat discarded, and the juice rendered by evaporation to one-fourth, or less, to the total quantity of the original amount of water). When rightly made, it becomes jelly when cold. When properly prepared, it makes a palatable and nourishing essence. Not one particle of salt should be used in its preparation—any more than in beef tea. This, like everything else, should be given in small quantities and often.

Next to that in importance will be found a teaspoonful of Valentine's meat juice in a cup of cold tea—one teaspoon at a time, every few minutes. Again, in most cases, another list of empiricism will be found most acceptable and beneficial : Cut up and dress raw tomatoes as for the table. They should be ripe and sound. For each tomato pour on a teaspoonful of pure *cider vinegar*, sweetened with pure sugar ; add a little pepper and salt. Let this stand until the juice of the fruit and the vinegar are well combined. Then give a teaspoonful of the *juice only*, every few minutes. It should be borne constantly in mind that our object here is to establish tolerance. Comfort and nourish the little patient, and thus tide over difficulties until they can be removed or are ameliorated by time and hygienic surroundings. The surest way to "make haste slowly," is not to overdo anything.

When the gums have been properly lanced (which may be requisite again and again in slowly progressing cases), and the patient has had the benefits of the alterative or corrective influence of mercury, with the assistance of bland, concentrated nutriment, and all or most of the ways and means detailed above, and no good seems yet to be accomplished—and especially if *more teeth* are coming, and hot, dry weather *continues*—it is better to start for the mountains, or some high, wholesome, non-malarious region; and it will be found that *one day's travel in that direction will do more good than a week or month of physicing at home.*

Whosoever has witnessed these cases of cholera infantum, languishing through the heats and droughts of summer, each day expected to be their last; and has beheld some sweltering, sultry afternoon, followed by a thunder cloud or tornado coming from the west, sweeping over the country, driving before it heat and dust, saturating the air and earth with cooling moisture, changing the electric status of the atmosphere (we know not how), and changing with it the almost hopeless condition of our little patients, will not think that the climatic changes just referred to have been exaggerated in their benefits.

The speaker would like to have stated somewhere before this that he had often been grievously disappointed in two staple articles of the *materia medica*, viz.: hydrargyrum cum creta and bismuth—either singly or combined. Both had often been rejected by the patient and abandoned by the doctor.

In concluding his remarks, Dr. Fontaine thought something ought to be said about the mode or manner of death in fatal cases of cholera infantum. Gentlemen who supposed they had only a simple bowel affection to deal with, sometimes find themselves mistaken. It is true, according to his observation, the tendency to death is by progressive exhaustion or “inanition.” But it not unfrequently happens that, even early in the disease, a certain set of brain or nervous troubles set in, and put an unexpected end to the struggle of vital forces. Even whilst the child is still vigorous, and the mere alimentary derangements are not alarming, a period of exceeding unrest sets in; the child becomes more and more uneasy and restless, rolls and tosses about, crying or moaning, looks more and more *anxious*, wants to be kept moving about, and from one nurse to another, until something like spasms or convulsions set in, speedily followed by coma, and, finally, by death. He did not feel competent to explain the immediate cause of this condition. He would be glad to hear explanations from other Fellows on this point. But even in such an untoward event, he was glad to say there was hope. It sometimes happened to country doctors to be called to such cases in the last extremity. In this, as in most diseases of children, there is *some* hope as long as life remains. Much can be done in the former

cases (of exhaustion) by the sedulous application of stimulants, heat, friction, and counter-irritation, by the mouth, by the rectum, and by cutaneous absorption. The child may rally even when life seems almost extinct. In the latter cases (death by coma), he has seen more than one babe snatched, apparently, from the jaws of death, by carbonate of ammonia, given by mouth or rectum; by mustard applications to the epigastrium, feet, legs, hands and arms; blisters applied *around* and *above* the *ears*, semi-lunar in shape, and covering most of each side of the head, while ice is applied to the crown of the head; frictions, with hot, camphorated whiskey, and hot whiskey enemata. Ether, Hoffman's anodyne, sweet spirits of nitre, and even chloroform can find a place here. Chloral hydrate, properly used, prevents many a convulsion in patients with cholera infantum.

Malarial complications, too, deserve a mention here. They are not infrequent, and require special attention. But Dr. Fontaine would prefer to hear from other gentlemen, who reside in more malarious districts than his own section of the State.

Dr. G. WILLIAM SEMPLE, of Hampton, Va., said that having made no preparation for the discussion, he could make only a few desultory remarks. In the range of his practice, cholera infantum was a rather unusual disease; but many cases of the consequent "summer complaint" were annually sent to Hampton and to Old Point Comfort for the benefit of sea air and bathing, which fell under his care. For the relief of the former, he usually prescribed calomel and bismuth in quite full doses, and followed them up with Scheffer's pepsin or lactopeptine, and the application of a weak infusion of essence of peppermint to the whole abdominal surface, giving, at the same time, ice and ice water, and occasionally a little whiskey or brandy in the water. If the infant was at the breast, each nursing was preceded by a teaspoonful or two of lime water, and only a few swallows of milk were allowed at a time. If the infant is fed on milk from the cow, or on condensed milk—the latter of which he greatly preferred—lime water was mixed with it. On one occasion, a friend of his kept a cow very carefully to supply milk to her infant, on which it was thriving so very well, that he recommended two others to use the same milk, and they all continued using the milk from the same cow during a long, hot drought, and they thrived; but on the same day, within an hour of each other, after the occurrence of a thunder storm in the morning, all were taken with cholera infantum. He had so often observed infants, fed on cow's milk, attacked by it under similar circumstances, that he had, for several years, always recommended *condensed* milk in preference to fresh cow's milk. Many of the cases of summer complaint of long standing, and by which the patients were greatly reduced, were cured, as if by magic, without medicine, by a few sails in pleasure boats about Hampton and Old Point Comfort. When

milk evidently disagreed with the patient, and it had incisor or molar teeth irritating the gums, he found that a change to some of the fine farinaceous preparations, such as granum imperium, was most useful; and if the canine teeth had made, or were about to make their appearance, Valentine's meat juice, or better still, the juice from the excellent roast beef of the Hygeia at Old Point Comfort, or Barnes' hotel at Hampton, made a most advantageous addition. When there was abnormal abdominal heat, he derived much benefit from copious injections of cold water—particularly when the disorder assumed a dysenteric form; and in this form he was also accustomed to derive real advantage from an emulsion of compound tincture of benzoin, from which the aloes had been left out.

In this connection, he observed that for the last eighteen months or two years, he had been accustomed to use the *tincture of quillaya* in the preparation of all emulsions; and this he considered a perfect God-send to country doctors, enabling them to prepare the most permanent and perfect emulsion in a few minutes, by adding from twenty to sixty drops of it to each ounce of water required, and adding, in a vial, the substance intended to be emulsified—whether the tincture of a gum, resin, or a heavy powder such as bismuth or calomel, and giving a few shakes to the bottle containing the same. For this most valuable information he acknowledged his indebtedness to *The Chemical Gazette and Advertiser*. To this emulsion he had sometimes found it necessary to add tannin, which seemed to induce a healthy secretion of yellow bile. He frequently employed sulphate of quinia—never injuriously, and most frequently with manifest great advantage.

Dr. J. E. CHANCELLOR, of the University of Virginia, said as the discussion had taken a wide range, and now partook of the character of an experience meeting, he would as briefly as possible cite one or two typical cases, which, to him, presented some features of interest in the treatment. Mrs. —, of Edenton, N. C., arrived at the Jordan Alum Springs, in Rockbridge county, Va., with her family of two children and nurses, about the middle of August. The youngest child, aged about twenty months, was ill with *summer complaint*, supposed to be due to the rapid eruption of the teeth. The thermometer at this high altitude (1800 feet above sea level) ranged from 87° F. to 90° F., at midday. After describing vividly the alarming symptoms presented by his patient, he gave the following history: The child had had chills and fever, as had others of the family. Previous to the bowel trouble the baby was stout and sprightly, but now had wasted in two days to an alarming degree. The most judicious treatment had been given, and change of air from the sea-shore to the mountains had been advised, but without benefit. The stomach rejected everything taken into it. The usual remedies—restriction to mother's milk,

cow's milk, condensed milk, the farinacea, meat juice, brandy, ice pills, saccharated pepsin and calomel, lactopeptine--all were tried in turn without relief to the symptoms. Then these remedies were withheld, except ice to allay the consuming thirst. Hot fomentations (flannel cloths wrung out of hot whiskey) were perseveringly applied, alternated with weak sinapisms over the stomach and bowels; and five grains of quinine were sprinkled over or rubbed on abdomen every four hours. Enemata of starch and compound tincture of opium were given, with twenty drops of Valentine's meat juice, every six hours, according to indication; and yet little improvement was manifested, except slight reaction, indicated by warmth of the extremities and less frequent and less copious stools. Dr. J. Staige Davis, of the University of Virginia, was called in consultation, and, at his suggestion, chicken tea, comfortably hot, was given in teaspoonful doses *pro re nata*, with the happiest effect. This was continued for two days, with the hot fomentation and quinine to the abdomen. The patient so improved that he was able to retain condensed milk, and made a rapid convalescence. The interesting feature in the treatment was the rapid improvement after substituting the chicken tea for the milk and farinacea, and the sustaining and antiperiodic effect of the local application of sulphate of quinia.

DR. CHAS. R. CULLEN, of Hanover Co. (P. O., Richmond, Va.), remarked that as he resided a short distance from the city of Richmond, he had not only cases of summer complaint of children occurring in his own practice, but also severe and very often fatal cases sent from the city for country air. He did not propose to go into any lengthy discussion of the subject; but would say that, under the name of "Summer Complaint of Children," there were, in fact, several diseases, more or less related, and arising from different causes. The symptoms of this "complaint" are well known to the profession. The chief cause of the complaint, in his opinion, is high temperature; and the mortuary tables of cities in the Union seem to prove it. In the more Southern States, bowel diseases of children commence about the first of May, and in early seasons, sooner. In Virginia, June is the sickliest month for children; and in the Northern States, July is. As soon as the thermometer indicates heat above 90° F., the summer sickness increases *pari passu* with the rise of the temperature. It may attack children before as well as after teething; and, though dentition may be one of the causes, yet a high temperature is generally the main cause. Added to these two causes, are indigestion, sitting on damp ground, ill-ventilation, improper clothing, etc. In regard to the diseases embraced under this title, they are also distinct. One is diarrhœa, whether it be inflammatory or non-inflammatory; and the other is cholera infantum. The diarrhœa of the child may be altogether the first; or it may be the latter combined

with, or commencing violently as cholera infantum, with vomiting, and purging of discharges like rice-water, deriving the serum from the veins, and reducing, in a few hours, the whole fullness of the face and limbs. Sometimes, the cholera infantum comes as a sequel to the diarrhœa.

The treatment is the matter of most importance to the profession. If the case be cholera infantum, calomel is undoubtedly the best remedy. It should be given every hour or two, until the discharges stop or change, and bilious passages commence, the cold skin becomes warm, the tormenting thirst lessens, and convalescence is apparent in all the symptoms. If calomel fails, add a dose or two of tincture of camphor, and a grain or two of prepared chalk. If they fail, try bismuth, and then ginger. If the vomiting continues, nothing seems better than champagne—one-fourth to one-half a teaspoonful every half hour—with flannels wrung out of hot mustard-water over the abdomen. Many medicines—like sugar of lead, vegetable and mineral astringents—are recommended by different authors; but very often they do more harm than good by continuing the nausea and vomiting. If milk agrees, continue it; if not, add lime-water or barley-water. The different preparations of beef-tea seem to disagree with children, and can only be used cautiously during the convalescence. The subject is too extensive for one person to occupy so much time from others.

Honorary Fellow Dr. F. D. CUNNINGHAM, of Richmond, Va., thought the subject under discussion one of especial interest to the profession and public, in view of the serious character of the disease in the cities—especially during the months of June and July. The ordinary diarrhœa of children would, in the majority of cases, yield promptly to any of the astringent remedies suggested, when proper attention was paid to diet and hygiene. Many of the most serious cases in his experience in Richmond did not have any preliminary diarrhœa, but began with the train of symptoms ascribed to that form of the complaint usually designated as cholera infantum. The child would be taken with rice-water discharges and vomiting from the first; and with these there would be the most rapid emaciation and prostration, indicative of severe nervous shock. Under these conditions, the fatal result would, in spite of all treatment, occur sometimes in a few hours, the patient dying often in convulsions or coma. He had found more satisfaction in this class of cases from the use of calomel, in one-half or grain doses, given on ice at intervals of one, two or four hours, according to the urgency of the symptoms, until the actions were changed to that dark, spinach-green color and uniform character which, when produced by calomel, he always found associated with a relief of the symptoms. In fact, in most cases, nothing but the mercury would be retained until the actions were changed; and to use astringents or opiates, except very cautiously, before this was produced, only increased the irritability of the

stomach and wasted valuable time. Along with the mercury he used cautious irritation by mustard over the abdomen and spine; and he gave stimulants to counteract the depression, if they would be retained. Having once obtained what he supposed to be the characteristic action of the calomel, he considered usually that the danger of the immediate attack was over, and the case could be treated as one of ordinary diarrhœa—with astringents, bismuth and anodynes, if indicated by pain or extreme weakness; lime-water and milk, etc.; and change of diet, if the attack was attributable to any error in that respect.

Whilst the cause of the attack was often obscure, and, in most cases, would be compound in its nature—that is, due to heat, teething, and often to errors of diet—the danger arose from passive congestion of the abdominal viscera first, and brain at a later stage of the disease. The liver and brain containing, relatively, so much more blood than the other organs of the infant, he considered the prime indication, in treatment, to be the relief of the congestion of those organs; and without attempting to explain, at length, the *modus operandi* of the remedy, he believed that mercury, by stimulating the glandular organ—the liver—relieved the portal congestion and equalized the circulation throughout the body. In some cases, when the attack was prolonged and the patient still recovering, the recovery would be accompanied by fever and other indications of inflammation, just as often happens in cases of Asiatic cholera, as those who had seen much of the latter disease could testify.

When remedies failed, after the first attack, as was often the case, he would always urge, if possible, a change of air, by temporary removal to a new location.

Whilst the subject was one of especial interest to him from the frequency of the disease in Richmond, he had not expected to occupy the time of the meeting with these remarks, which were, therefore, imperfect and wanting in connection; and he would yield the floor to others, in the hope of hearing something more as to pathology and treatment. He could not close, however, without again affirming his belief, that, for *cholera infantum*, as seen in the cities and towns of Virginia at least, the prompt and judicious use of calomel alone—or in combination with other agents named—afforded the most certain and speedy relief.

Dr. HENRY T. BAHNSON, of Salem, N. C. (Fraternal Delegate from the Medical Society of North Carolina), after thanking the Society for the compliment tendered his State, as to himself, acknowledged his indebtedness to Dr. Cunningham for his lucid and exhaustive presentation of the subject in all its bearings, more especially its etiology and pathology. Dr. Bahnson's experience, although much more limited than Dr. Cunningham's, owing to the fact that he resided in a healthy and comparatively small

community, in some respects differed from his. In most of his cases, the disease was not ushered in without warning in the way of gastric or intestinal irritation—painless, watery dejections, mixed with undigested matter, etc. Dr. Bahnson had seen benefit from large doses of calomel; but believed the good effect due rather to its sedative effects upon the gastric mucous membrane, than its action (if it had any) upon the secretory functions of the liver. *Very* large doses of bismuth acted in the same way, and pleased him better. His plan of treatment was to give the stomach as absolute rest as possible—to do its work for it. He gave no food except milk with lime water (one part to two of milk), and this in very small quantity frequently repeated, always accompanying it with half to one teaspoonful of the elixir of pepsin and bismuth (preferably, that of Hance Brothers & White, which, by comparison with others, he had found the best). Believing, further, in the necessity of absolute rest, he brought the little patient under the influence of opium as soon as possible. This he accomplished by means of paregoric (gtt. x ad xx), every half hour or hour, until its effects could be perceived. Usually he combined with this gallic acid (grs. xx—xxx, ad fʒj.) He always used warm fomentations or spice plasters on the abdomen.

VOLUNTEER PAPER.

NEW REMEDIES.

By CHARLES R. CULLEN, M. D., OF HANOVER COUNTY,

(*Post-Office*, RICHMOND, VA.)

Viburnum Prunifolium.—The black haw bush or small tree, every body knows; but medicinally, very few know that the profession have in it a real remedy in threatened abortion, or flooding after it. I was called to a lady in her seventh month of pregnancy, with violent pains coming on every five minutes, and which had been increasing for several hours. I gave her at once one drachm of the fluid extract, with thirty grains of hydrate of chloral. In an hour the pains moderated some little, and I repeated the viburnum, with twenty grains of chloral. Two hours after, I gave the same and the pains subsided. The patient slept several hours. In six or seven hours the pains returned again, and I again gave one drachm of viburnum, and twenty grains of chloral; I gave three doses, subduing the pains. Being called away to a labor case, I was absent *twelve* hours, and being sent for hurriedly, I found my patient, as before, with more violent pains, and the os uteri opened three-fourths of an inch. I repeated the same doses four times, and the pains subsided. This condition continued about eight days, but required less chloral each day. Every three or four hours I gave milk freely, keeping the bowels open by enemata. The patient bore the medicine well, and made a good recovery; and two months afterwards went through her labor satisfactorily.

I had often tried hydrate of chloral and other medicines vainly, to check abortion or miscarriage, after the womb commenced opening.

Two months afterwards, I was called to a similar case in threatened abortion, with flooding. I gave the viburnum alone, as I desired the patient to be awake in order to report hæmorrhage. In two hours the pains and hæmorrhage both ceased, with good recovery.

I was called last year to another patient—flooding dreadfully—and the contents of the womb were partially removed. I gave viburnum and ergot, and used hot-water injections, with the bag syringe (otherwise called fountain syringe)—a great improvement on the rubber bulb. The flooding was violent, and required continuous use of the syringe and medicine for two days before the hæmorrhage ceased. The abortion was complete.

A short time since, I was called again to the same lady, in her seventh month of pregnancy, with violent pains every seven minutes, but no flooding. I gave viburnum and chloral, as before; but the stomach rejected three doses in succession. I then gave four drachms of viburnum and eighty grains of chloral, by enema. In one hour the pains moderated somewhat. I gave half the quantity for the second dose, and the pains gradually stopped without further trouble. I used the fluid extract prepared by Parke, Davis & Co., Detroit.

If this preparation is not accessible, I would use the decoction of the fresh bark. The profession can rely on this remedy, and doubtless many lives will be saved by its prompt use.

Cascara Sagrado, or Rhamnus Purshiana.—I have used this drug for two years, and find it excellent for constipated bowels. When the rectum is torpid, and no other organ is affected, cold water enemata often restores regular passages, particularly after hard labors; but everything fails to act after one or two passages, and this drug proves a good remedy, and requires small doses. It is thought to act by toning the bowel to its natural function; but whatever the theory may be, its good effects have been acknowledged by hundreds of people wherever it has been used. When this remedy fails to act, as it does sometimes, I add one to two drops of the fluid extract of belladonna, and natural passages are obtained.

Berberis Aquifolium.—Having several scaly diseases which arsenic, iodine, and other alteratives failed to cure, I used this drug by itself, and with success. One case was cured with a pint of the fluid extract; another with two piuts; and some others required more. Where constipation or torpid bowels existed, I added the cascara sagrado; and for convenience, I had several thousand pills made, for the cases requiring both medicines; but would prefer the fluid extracts. In several cases of syphilis, the disease yielded very promptly, and without the use of any mercury. As an alterative of the blood, I doubt if this drug does not take its place beside iodide of potassium. Not having had the experience in many of the diseases reported, I am unable to furnish any results from its use, as given in the various journals by practitioners all over the country.

Some physicians report cures of *cancer* from the use of this drug, but not having used it in a single case, I merely mention it, and in connection with the other new remedy—*Chian turpentine*. Whether either or both have any virtue in a genuine case of cancer, remains to be seen and tested by the honest and truthful part of the profession.

I would digress for a moment and report my experience in cancer, and would state that in every city, from Boston to San Francisco, I have looked after cancer cases, with the treatment adopted. Before the late sectional war, I visited a cancer hospital adjoining the suburbs of Memphis, Tenn., and remained all night with the proprietor—formerly a tailor, by calling, who found large fees by cancer-curing, as he advertised it. I saw forty patients, and probably only four cases of cancer—three of which the cancer-doctor admitted were hopeless. The others were ulcers and tumors of every kind. Some of them very large and easily cured—as the oily-encysted tumors—and for all of which large fees were obtained from wealthy planters. Since the war, I visited a cancer hospital in Philadelphia, but saw only some mild cases. Not being admitted within the hospital, with the assistance of a prominent surgeon, we visited many of the cases reported cured throughout the city, but no one case had a physician's certificate that it was a *cancer*. A late report on cancer by a German physician, reports one case in fourteen cured; and doubtless if the cured cases had lived a while longer, the cancers would have returned. While not incredulous about cancer cure, it is best to wait awhile and see results. The concurrent testimony of experienced and honest men should take precedence of money-making quacks.

Cereus Bonplandii.—This is one of the many species of cactus, and having tried it in several cases of functional heart disease, I am willing to wait and try again before deciding it is the best remedy ever used, as asserted by several physicians. One of my cases has been at death's door several times, and has recovered under its use. The symptoms were shortness of breath, inability to lie down, great frequency of pulse, faintness, flushing of face, lips and fingers almost stagnant with blood. Having tried the usual remedies—digitalis, bromide of potassium—and these without success, I gave the fluid extract of *cereus bonplandii*, in fifteen-drop doses. In half an hour I repeated the dose. The action of the heart moderated, and from 125, gradually came down to 90 pulsations to the minute, or even less. In two cases there was suppression of urine, which warm baths and acetate of potash failed to relieve; and in conjunction *hair cap moss* was given—half a drachm of the fluid extract at a dose, every two hours. In one case, the kidneys commenced acting, and over a gallon of water passed during the next twenty-four hours. I do not believe the patient would have lived twenty-four hours without the use of the latter remedy. I do

not know of a better combination, where the urine is scanty and albuminous, and drowsiness, indicating coma, is apparent. The few cases of benefit already had, lead me to believe that both drugs will be more freely used in similar cases.

Petroleum.—My attention was called to this drug from the reports of persons in the first stages of phthisis being cured in the region of the kerosene oil wells of Pennsylvania. Cases in the second stage of the disease were reported much improved. In order to test the matter, I have used the crude petroleum very freely, giving one to two four-grain pills every four hours. I have had several cases much improved and still living. Further experience, and on a larger scale, remains to be tested. The few cases I had failed to improve with hypophosphites, cod liver oil, iron and various preparations of malt, until the petroleum pills were given. If this or any other article can cure this widespread disease, the sooner it is tried the better. The mortality of the disease seems to be increasing.

It may be of service to some of the profession to know that Messrs. Reed & Carnrick, of New York, furnish a very pleasant and useful fluid mixture of maltine and petroleum.

There are other drugs reported to be efficacious and being used very extensively, viz.: *Yerba santa*, in bronchial diseases; *yerba rheuma*, in diseases of the mucous membrane; *grindelia robusta*, in asthma; *grindelia squarrosa*, in malarial diseases; *coto bark*, in bowel affections. But all of these have to be tried more extensively to test their merits—the only way of ever becoming acquainted with anything.

REPORT OF
NECROLOGICAL COMMITTEE
Medical Society of Virginia, 1880.

JOHN S. APPERSON, M. D., TOWN HOUSE, VA., Chairman.

Mr. President,—It is the sad duty of your Committee to announce that eight Fellows have been taken from the roll of the Society since its last meeting. One of these, Dr. Jas. A. Agnew, of Burkeville, Va., died a few days before that time, but his death was not known to the Committee, and hence was not reported.

Dr. Marcellus P. Christian was born in Buckingham county, Va., October 9th, 1829, and died of pneumonia at his home in Lynchburg, Va., November 2nd, 1879.

Dr. Christian was one of the original members of the Society, and was always prompt and zealous in promoting its success—ready at all times to undertake every duty required of him, and proud in its accomplishment. He was once elected its First Vice-President, and once orator, and delivered a most beautiful and chaste address on: *The Objects and Aims of Medicine*.

His love for his profession was something akin to veneration. He loved it for its grandeur and its dignity—he loved it, as expressed in his own language because: “It was a science whose grand object is to mitigate human suffering and alleviate the woes of the afflicted ones of earth; is well adapted to inspire lofty sentiments and awaken the purest emotions of the human heart.”

The following sketch of his life is taken from a paper prepared by Dr. Benj. Blackford, of Lynchburg, Va., at the time of Dr. Christian's death, and whose kindness in furnishing it to the Committee is hereby acknowledged:

“He studied medicine at the University of Virginia in 1855–6, and

graduated at the University of New York in 1856. He settled in Lynchburg to practise his profession; but in the fall of 1857, went to Philadelphia to prepare himself for examination by the Naval Board of Examiners for an appointment as assistant surgeon in the United States Navy, which examination he passed, and in the summer of 1858 received his commission. In a short time he was ordered to the United States steam frigate, Niagara, which went on a voyage to the coast of Africa to return a cargo of natives, which had been captured from a slaver and brought to Charleston. On his return from that service he was ordered to the sloop-of-war, Brooklyn, which went on a cruise to the West Indies and the Gulf of Mexico for about a year, when he was ordered to the Mediterranean in the steam frigate, Susquehannah. During the cruise in the Mediterranean, he was transferred to the steam frigate, Richmond, on which he remained until the breaking out of the war, when the Mediterranean squadron was ordered to the States; he returned in the Richmond, and resigned his commission immediately upon his arrival in New York, in May, 1861, and without delay came South to tender his services to the Confederate States Government as medical officer. Before the organization of the Medical Department of the Confederate States Navy, he was assigned to temporary duty at the Confederate hospitals at Culpeper courthouse, where he remained until the fall of 1861, when he was ordered on duty at Island No. 10, Mississippi river, and thence to the Confederate States gunboat, McRea, below New Orleans. He was in the hot engagement down the river when that city was captured, and came near losing his life. After the fall of New Orleans, he was stationed at Savannah and Charleston, and the last two years of the war was on duty at the Naval Hospital in Richmond, Va.

During the war, in 1862, he was married to Miss Nannie Davis, daughter of Mr. Micajah Davis, of Liberty, Va., whom he survived six years.

After returning home he was not long in building up a good practice, and taking a place in the very front rank of the medical faculty of the city.

In private walks of life, Dr. Christian commanded the confidence and esteem of all who knew him and the affection of his friends. He was honorable, just and generous. He was true as the magnet to his friendships, and immovable in his adherence to right, duty and principle. Though often blunt and seemingly impatient, his heart was warm and his impulses generous. He will be sadly missed in the social circles, in his profession, by his relatives and friends, but most of all in that desolate home where one young life is under the shadow of affliction and one heart is bleeding in the agony of its great woe."

Dr. Robert F. Baldwin.—Dr. H. Black, of Williamsburg, has been

kind enough to send data, from which the following notice has been compiled with reference to Dr. Robt. F. Baldwin, who died at Staunton, Va., November 14, 1879:

Dr. Robt. F. Baldwin, son of Dr. A. S. Baldwin, was born in Winchester, Va., August 1st, 1829. He spent the session of 1848-9 at the University of Virginia, and graduated in medicine at the University of Pennsylvania in the spring of 1851. The following summer he was attached to the hospital belonging to the college, and in the fall of that year he returned to his home in Winchester and engaged in the practice of his profession with his father, and remained there until 1861. When the war broke out he joined the Confederate States Army and was commissioned Colonel of the Thirty-First Virginia Militia regiment. Early in the year 1862, after a gallant fight at Bath (Northwest Virginia), he was taken prisoner and sent to Camp Chase, and afterwards to Fort Warren. In 1863 he was exchanged, and on his return was appointed Surgeon Confederate States Army, and assigned duty with the Fifth Virginia Regiment of Infantry, Stonewall Brigade. Sometime during that year, he was placed in charge of the General Hospital at Staunton. After the close of the war he went back to Winchester and pursued his old practice.

Soon after the death of the venerable Dr. Stribling he was made Superintendent of the Western Lunatic Asylum at Staunton, Va., and remained in the faithful discharge of the duties of that position until the time of his death.

Sometime prior to his appointment as Superintendent at the Asylum he suffered from an affection of one of his eyes, which necessitated its removal, and also a subsequent operation—both by Dr. Chisolm of Baltimore—but this did not suffice to eradicate the disease, supposed to be cancerous, which finally brought about his death.

Dr. Baldwin was a member and vestryman of the Episcopal church for many years, and those who knew him attest the fact of his high character as a citizen, his devotion as a Christian and superior worth as a physician.

Dr. Benj. G. McPhail.—The Committee is indebted to our [late] esteemed Corresponding Secretary, Dr. Christopher Tompkins, of Richmond, Va., for the following memoir of Dr. McPhail:

“Died March 10th, 1880, Dr. Benjamin Grigsby McPhail, Acting Assistant-Surgeon United States Army, and Post-Surgeon, Fort Gibson, Indian Territory.

Dr. McPhail was born in Scottsville, Albemarle county, Va., November 18th, 1844. He received his education in Norfolk, and for a short while afterwards taught school. When a mere boy he displayed unusual fondness for drugs—handling, weighing and mixing them with a great show of genius. In 1860 he came to Richmond, and there he was enabled, by great

and untiring industry, united to that talent, so peculiar to him, to become successively an apothecaries' clerk, next a partner in the business, finally sole proprietor of one of the most successful and respected pharmaceutical establishments in the city.

At no time, in his brief life, robust and strong, his health suffered greatly from the confinement incident to the nature of his occupation. Turning his attention to medicine, he became a student at the Medical College of Virginia, where he graduated with marked distinction in 1870. The honors he had obtained in the other walks of life seemed only the harbingers of his success as a physician. For the three years subsequent to his graduation, he practised his profession in the city of Richmond, where, in addition to the arduous duties of a large and paying practice, he found time to do much charity, and held with distinction several offices of honor and trust—among them that of Deputy Coroner of the city of Richmond, and Lecturer on *Materia Medica* and Therapeutics in the Medical College of Virginia.

Being still pursued by ill health, he resolved to remove to the far West; and to further that end accepted a position in the United States Army, which he held (with the exception of occasional visits home) till the day of his death. During this time, in addition to his regular duties as a surgeon and officer of the army, wielding with the greatest ability his pen, he made valuable and rich contributions to general as well as medical literature, which gained for him an enviable reputation as a writer. His contributions to scientific journals were solicited much oftener than could be complied with, and were extensively copied elsewhere. Should we single out one subject in which he was specially proficient, we would point to his many and valuable papers on "Climatic Influence of the West." His mind was richly stored with botanical knowledge, and he indulged in extensive investigations in both comparative and special anatomy, as was well attested by the many preparations of plants, birds and skulls that he made, some of which were donated to the Army Medical Museum in Washington, and others liberally distributed amongst his many friends in the East; and it may be cited as an indication of his popularity at Washington, that the medical officer in charge of such material there, desiring to compliment him, presented him with a complete file of the *New York Medical Record*.

Of popular and engaging manners, he was honored and respected by his associates and very much beloved by those who knew him intimately. An exemplary son and brother, a ripe scholar, a talented and gifted physician, a noble, a true, a brave and a generous friend, he will be sadly missed, and his loss is one that the Society cannot fill."

The Committee has also received the following "*in memoriam*," from Dr.

Thos. J. Riddell, Richmond, Va., regarding Dr. McPhail:

"Died, March 10th, 1880, at Fort Gibson, Indian Territory, of phthisis pulmonalis, *Benjamin G. McPhail, M. D.*, Acting Assistant-Surgeon, United States Army, formerly of Richmond, Va.

The angel of death has taken from us one among the most respected and worthy young physicians of the Medical Society of Virginia.

The subject of this brief notice was an intimate friend of mine. Having commenced our professional career at the same time, in 1870, it was my happy privilege to have been thrown with him often—both socially and professionally for several years, during which time I can say with unfeigned pleasure, that in all the relations of life, his deportment was most exemplary, always entertaining the highest sense of professional propriety and honor. His courteous bearing and kindness of heart were two of the prominent elements of his nature, which endeared him to many of his professional brethren. He was ever willing and ready to render assistance to those who needed his services. As a physician, his career through life truly exemplified the noble and commendable traits that adorn the character of the true physician and gentleman. He was independent, and self reliant, and charitable toward those who differed with him in sentiment, always entertaining and maintaining the dignity of his profession, and that respect for the reputation of his professional brethren, which is so absolutely essential and incumbent upon every votary of the noble profession of medicine, thereby promoting harmony and friendship, and at the same time reflecting honor upon our sacred calling, whose mission is second to none.

He was a faithful friend, and a devoted son and brother; and it will be consoling to his numerous friends to know that he was prepared to meet his God when the summons came. Now that his earthly ties are severed, I merely desire to give this concise and imperfect expression to my high appreciation of his merits; and, in concluding, I can only add, as a friend and professional brother,

"Multis ille bonis flebilis occidit,
Nulli flebilior quam mehi."

Dr. Chas. T. Ellett, of Richmond, Va., died sometime during the summer of 1880, of phthisis pulmonalis, at the age of 34 years.

Dr. Ellett graduated in medicine at the Medical College of Virginia in the spring of 1872, but we gather from a letter written by Dr. Wm. B. Gray, of Richmond, Va., that he was always in such feeble health that he never engaged actively in his profession or any other business.

Dr. T. E. Ballard.—Died, at Chatham, Va., August 22nd, 1880, Dr. Thomas E. Ballard, in the thirty-third year of his age.

Dr. Ballard graduated at the University of Virginia in June, 1872,

and afterwards went to Philadelphia with the view of preparing himself to go before the Naval Board of Examiners for an appointment in the United States Navy. The sickness and death of his mother about this time recalled him home, and caused him to abandon the purpose of entering the Navy. In the spring of 1874 he commenced the practice of his profession at Chatham, where he was living at the time of his death.

Dr. R. W. Martin, who knew him well, writes that Dr. Ballard was a man of most indomitable energy, a promising physician, and at the time of his death was growing rapidly in the estimation of the people among whom he had settled.

Dr. James A. Agnew.—The following memoir of Dr. James A. Agnew has been kindly furnished by Judge F. R. Farrar, of Deatonsville, Amelia county, Va. :

Dr. James A. Agnew was born in the county of Prince Edward, on the 23rd day of March, 1828, and died, after a long and painful illness from consumption, on the 5th day of October, 1879. He was a son of Dr. James Agnew, who was also a physician of high standing and great personal worth.

Dr. James A. Agnew, the subject of this memoir enjoyed all the advantages in early life of wealth and social refinement. He was an alumnus of the Medical College of Virginia, and a graduate of the University of New York. About the year 1851 he settled near Burkeville, in the county of Nottoway, and during his life he resided in Burkeville, or its immediate vicinity. He commenced the practice of his profession with remarkable auguries of success. His fine acquirements, the prestige of his father's reputation, and his own activity and diligence soon secured him a large and remunerative income. He was sent for in all the surrounding counties, and his consulting practice was extensive. To his brother practitioners, he was always generous, considerate and courteous, and it was but natural that he should win their esteem and confidence. He was devotedly attached to the science of medicine, and well posted in all the new discoveries, improvements and formulæ of the profession. He conversed with extraordinary clearness and fluency on the subject, and his fervor and earnestness of expression often attracted the attention even of the uninitiated.

Socially, no man ever had warmer friends. His patrons loved him dearly. His genial and cordial manner, united with a native dignity of character, made him an object of admiration and respect.

But whatever may have been his manner in society, he showed brightest in the darkened chamber of sickness and affliction. There was a charm in his very look, a touch of tenderness and sympathy, mingled with an air of confidence and self possession, that at once inspired the patient with hope.

His funeral was preached by his pastor, the Rev. Dr. Pryor, in Burkeville, to the largest assemblage of persons I ever saw on a similar occasion; and when the remains were borne in by the pall bearers, and the organ gave forth its plaintive dirge, the whole audience swayed with grief. A vast procession, a mile in length, representing all classes of society, from the poor negro who had been the recipient of his charity, to the highest gentleman who had been the object of his ministrations, followed the bier to the grave, and he now sleeps beside loved ones who had gone before.

I do not know what epitaph will mark his resting place, but if it were only this and no more, it would tell the truthful story of his devotion, self sacrifice and spotless character:

JAMES A. AGNEW,

The Good Doctor.

Dr. Chesley Martin.—Died, May 8th, 1880, from apoplexy, at his home, in Chatham, Pittsylvania county, Va., Dr. Chesley Martin, in the 71st year of his age.

From the *Danville Post*, *Lynchburg News* and *Chatham Tribune*, newspapers, publishing notices of his death at the time of its occurrence, we gather the following:

Dr. Martin was a self made man. Left an orphan by the death of his father at the early age of nine years, and with very limited means for his education and support, Dr. Rawley White, Sr., took the boy, and while yet very young used him as an apprentice in his office. With a natural proclivity for the medical profession, we are told that he advanced rapidly, and discharged the duties that devolved upon him "with distinguished fidelity and success."

His literary education being only such as could be attained in the common schools of the county, was necessarily defective in many respects; yet by close application, determined perseverance, aided by a naturally strong mind, he gained information rapidly; so that by the time he reached his 24th year he had worked himself, so to speak, both pecuniarily and intellectually, into the University of Pennsylvania, but could not remain long enough to take his degree.

He commenced the practice of medicine immediately after his return from the University, at Peytonsburg, in Spottsylvania county, Va., and married his wife, who was the daughter of his friend and preceptor, Dr. White. He afterwards moved to Halifax county, Va., and subsequently, in 1841, to Kentucky, with the purpose of locating in that State, but came back to Virginia in 1842 and located in Chatham, and entered into a copartnership with his brother-in-law, Dr. Richard White. This business relation was kept up until 1871, when Dr. White retired, and his son, Dr.

Rawley W. Martin, became his partner and remained so until the time of his death.

In the year 1858, in consideration of his distinction as a physician and unsullied character as a man, his old University voluntarily conferred upon him the degree of M. D.; and, judging from the evidences before us to-day, the honor was never bestowed on a more befitting person than Dr. Chesley Martin.

As a physician, all attest the fact that, "In his nearly fifty years of practice he dispensed his services with equal impartiality to the high and low, the rich and the poor. He allowed no other consideration of duty or pleasure to trespass upon the paramount claims of the profession of his choice."

"His relation with other members of his profession were of the most kindly nature. He was beloved and respected by all, and accorded to them a generous support and assistance when he could."

As a man, his love of truth, strict regard for candor and unwavering attachment to principle were characteristics that lifted him above the common men of earth, and commanded the respect of his fellows on all occasions. Genial in his nature, generous in his impulses, he was the favorite of all classes.

He was an honored member of the Masonic fraternity, and his death brought forth a most expressive and beautiful tribute to his memory, and by the rites of the Order he was buried.

We can but feel sad when we remember that another grand old man has passed away—fell with the harness on—after a manly contest of nearly half a century with human suffering.

Dr. Samuel Selden.—Died, after a long and painful illness, at his home in Norfolk, Va., at 7 o'clock P. M., Tuesday, January 13th, 1880, Dr. Samuel Selden, in the 46th year of his age.

From a little volume of poems, of which Dr. Selden is the author, sent us by Dr. Wm. J. Moore, his preceptor and life long friend, and extracts taken from the newspapers of Norfolk, we are enabled to arrange the following synopsis of the life and character of this most excellent physician and Christian man.

Dr. Selden was born in Norfolk, Va., in the year 1834, and came from an old and richly endowed family—a family noted for its high social position and intellectual ability.

His literary education was commenced in his native town and completed at Hamden Sidney College, where he graduated. After his graduation here he spent three years in St. Mary's, in Georgia, then returned to Norfolk and studied medicine in the office of Dr. Wm. J. Moore, having previous to this time held a situation in the drug store of M. A. & C. A.

Santos. He then went to the Medical School of Charleston, South Carolina, where he graduated "with great distinction in the spring of 1861, the faculty awarding him the best place in the class, and the prize for the best thesis." Uniting in marriage with Miss Elizabeth M. Lamb, of North Carolina, he located in Norfolk and entered into the practice of his profession, which he followed continuously, except when feeble health forced him to rest, up to the time of his last illness. In this vocation he seems to have been specially successful, and won for himself an enviable place in the hearts of his people. Besides discharging so faithfully the duties devolving upon him as a practitioner of medicine, he was also active for good in other departments of life. He was an efficient teacher in the Sabbath school of the Presbyterian church, to which he belonged, an honored member of the Masonic fraternity and of the Order of the Knights of Honor, and one of the Directors of the Norfolk Library Association. He was the first president of this Association, but because of ill health he was compelled to resign. He was also an active member of the Norfolk Medical Society, and had been a Fellow of the Medical Society of Virginia for eight years, and on the occasion of the meeting of this Society in Norfolk, in 1873, he delivered the address of welcome. At the time of his death he was a member of this Committee on Necrology.

With reference to the many virtues of Dr. Selden your Committee is entirely sensible of the fact, that, though it might devote to his memory a much larger space than would be proper in this report, it will fail to fill the measure of praise due this devoted Christian man, who lived a shining light in all the varied walks of life, and died "adored by his heart-broken family, admired and beloved by all who knew him, and at peace with the world, himself and his God."

The following extracts taken from the preamble and resolutions, adopted by the Norfolk Medical Society, bear witness to the rare graces found in the character of Dr. Samuel Selden, and express the deep sorrow felt at his death:

"In all the varied relations of life as friend, citizen, Christian, husband and father, his career was a beautiful example of duty thoroughly performed. As a poet and man of letters, he showed himself possessed of a noble genius, and adorned the literature of his native State. He was one of the most prominent and valued members of the medical profession in this city, and one of the original members of this Society, a friend to the poor and a shining ornament to this community.

Resolved, That, while bowing with humble reverence to the decree of Providence which has taken him from our midst, it is meet for us to give expression to our sorrow at the loss which we have suffered, and which we deeply deplore.

Resolved, That in his life and character, he set for us, and for all, an example of Christian grace more easy to admire than to imitate; and reviewing his career, we see that he found his ideal of excellence in the teachings of Holy Writ.

Resolved, That these proceedings be spread upon the Records of the Society, and that they be communicated to the Medical Society of Virginia.

Dr. J. M. Stover.—The report of this Committee at the last meeting has the simple statement, "J. M. Stover, M. D., Broadway, Rockingham county, Va., died in 1878;" and while this report was being written, the following notice of the life and death of Dr. Stover was received from Dr. Jas. A. Winfield, and is given a place in this record:

"Dr. John Marshall Stover was born in Augusta county, Va., August, 1849. Graduated in medicine at the University of Virginia and, subsequently, at Bellevue, New York. He commenced the practice of medicine with me at Broadway, Rockingham county, Va., remaining at this place two years. While here he connected himself with the Presbyterian church, and was highly esteemed as a man and as a physician. In 1875 he removed to Piedmont, West Virginia, and soon made many friends there. In October, 1877, he contracted diphtheria from a patient he was attending, and died from the disease November 4th, 1877, leaving a wife and two little boys.

Dr. Stover was a good student, a close observer and a man of much more than ordinary ability. He was devoted to his profession, for which he seemed to have a peculiar aptitude; and although young, he had already taken high rank as a practitioner of medicine. Both at Broadway and at Piedmont, he held the office of deacon of the church, to which he had attached himself, and was regarded wherever known as a most exemplary Christian."

All of which is respectfully submitted.

PROCEEDINGS.

FIRST DAY—NIGHT.

DANVILLE, VA., *October 19th, 1880.*

The Eleventh Annual Session of the Medical Society of Virginia convened at 7½ P. M. (Tuesday), in Odd-Fellows' Hall (on Main street), in the city of Danville, Va.

The meeting was called to order by the President, Dr. Henry Latham of Lynchburg. Dr. Landon B. Edwards, Richmond, Recording Secretary, and Dr. Charles S. Brittan, Richmond, Assistant Recording Secretary, were also in place.

Fellows in attendance were requested to register their names and Post-Office addresses at the desk of the Recording Secretary. [The following is a list of all in attendance during the several days of the session, including the names of the gentlemen elected to fellowship during the several days of the session, arranged alphabetically for convenience of reference]:

NAMES.	POST-OFFICES.
Dr. J. A. Alexander,	Broadway.
“ John S. Apperson,	Town House.
“ L. Ashton,	Falmouth.
“ R. V. Barksdale,	Danville.
“ P. B. Bowen,	Stafford's Store.
“ Charles S. Brittan,	Richmond.
“ C. A. Bryce,	“
“ W. C. Cabell,	Calland's.
“ W. C. Carter,	Danville.
“ J. E. Chancellor,	University of Virginia.
“ H. W. Cole,	Danville.
“ W. S. Cooper,	Morrisville.
“ Charles R. Cullen,	Hanover Co. (P. O. Richmond)
Hon. Fellow Dr. F. D. Cunningham,	Richmond.

NAMES.	POST-OFFICES.
Dr. William C. Dabney,	Charlottesville.
“ C. Watson Doyle,	Dickinson's.
“ Landon B. Edwards,	Richmond.
“ R. T. Ellett,	Blacksburg.
“ Jas. E. Fergusson,	Malmaison.
“ Hume Field,	San Marino.
“ A. W. Fontaine,	New Canton.
“ Franklin George,	Danville.
“ Robah F. Gray,	Danville.
“ Wm. B. Gray,	Richmond.
“ Jas. C. Green,	Danville.
“ T. B. Greer,	Rocky Mount.
“ Barksdale Hall,	Halifax C. H.
“ Lewis E. Harvie,	Danville.
“ Paulus A. Irving,	Danville.
“ Meade C. Kemper,	Richmond.
Hon. Fellow, Dr. Henry Latham,	Lynchburg.
Dr. P. H. Lightfoot,	Petersburg.
“ R. W. Martin,	Chatham.
“ Hunter McGuire,	Richmond.
“ Jacob Michaux,	Michaux Ferry.
“ H. G. Miller,	Millboro Depot.
“ Hugh T. Nelson,	News Ferry.
Hon. Fellow Alban S. Payne,	Markham.
Hon. Fellow Dr. Robert S. Payne,	Lynchburg.
Dr. Thomas J. Riddell,	Richmond.
“ W. L. Robinson,	Danville.
“ G. Wm Semple,	Hampton.
“ R. M. Slaughter,	Orange C. H.
“ Thos. D. Stokes,	Danville.
“ Richard T. Styll,	Richmond.
“ Hugh M. Taylor,	Richmond.
“ B. B. Temple,	Danville.
“ G. T. Walker,	Gish's Mills.
“ M. M. Walker,	Richmond.
“ J. S. Wellford,	“
“ Jos. A. White,	“
“ Jas. L. White,	Farmville.
“ W. A. Wilson,	Christiansburg.

DELEGATES FROM OTHER SOCIETIES—Dr. R. L. Payne, of Lexington, N. C., and Dr. H. T. Bahnson, of Salem, N. C., representing the North Carolina Medical Society.

After prayer by Rev. J. E. L. Holmes, pastor of the Baptist Church of this city, Dr. Wm. L. Robinson, President of the Danville Medical Association, in the name of the profession and citizens of Danville, delivered the following *Address of Welcome* :

Mr. President and Gentlemen of the Medical Society of Virginia,—Through the partiality of my medical brethren, the honor has been delegated to me of welcoming you to our city. Your coming has been to us a long-deferred joy; and when the time was come to realize our expectations, I doubted my capacity to select words adequate to express our feelings of gladness and welcome.

Rest from daily and nightly rounds to patients, absence and relief from that responsibility and anxiety concerning ill and dying people, which exhausts and prostrates mentally and physically, and from which we so often long for even a temporary respite; the assemblage of intelligent and social men to discuss those subjects

which baffle our skill, and a pleasant interchange of views—medical and non-medical—means a re-union from which all anticipate much pleasure.

But, sirs, while my mind has passed in review these sources of enjoyment, and while I have meditated much on the benefits of a varied character to be derived from your meeting here, still there is something more which gladdens my heart. From the day I assumed the duties of physician, I have read with pleasure in the medical journals of the organization of local associations in almost every town, and I have noted in the reports of their discussions the improvement from time to time, showing that men who meet to discuss scientific subjects read and improve themselves; for there is implanted in the breast of man a feeling of pride which fain would have no fellow-man show to better advantage.

I assert, without fear of contradiction, that physicians cannot meet regularly to discuss medical subjects without resulting in—1st, The reading of medical literature far in excess of what they have been reading. 2d, A corresponding improvement to the amount of reading. 3d. In harmony and good feeling between brethren. 4th. In the elevation of medical men to that noble position which both their profession and their own acquirements entitle them.

I said I have noted with pleasure the organization of local medical societies, but deep mortification weighed me down, when here in our thriving town every other profession and enterprise was taking its legitimate stand, failure mocked our every effort at organization.

Two years ago, at the State Medical Society in Richmond, I urged you to come to Danville, feeling assured we would be stimulated to action; but Alexandria charmed you away. Now, however, I can thank you for your coming, for it has united a goodly number of us into an organization which I know will build us up in knowledge, build us up in professional courtesy, and marshal us in one harmonious band to fight disease and soothe human suffering.

Since the formation of a State Society, there has been a vast increase in subscriptions to medical literature, and in every city where you have assembled, you have stimulated the student and stirred up the man at ease, until now consultation means a measuring of theoretical swords, and a discussion of disease on scientific principles.

I indulge the hope that this, your first visit, may be attended with sufficient pleasure to induce you to come again ere long.

In the name of the medical fraternity, and in behalf of the good people of Danville, I stand here to announce to you that our hearts are full of joy; our doors are wide open, and chairs are newly placed at our firesides, to assure you of our wonted hospitality. Again, in no meaningless words of formality, I welcome you, one and all, to our homes.

After the President had returned thanks to the medical profession and the good people of Danville for the cordiality of their invitation and their generous reception, he announced as the next business in order the delivery of the *Annual Address to the Public and Profession*. He thereupon introduced to the large audience of ladies and gentlemen, Dr. L. Ashton, of Falmouth, Va., who announced as his subject *The Influence of Medicine in its Connection with the Outside World—The Professional and Non-Professional—Their Influence upon Each Other*. [See page 168.]

On examination of the "Register of Fellows Present," it having been noted that Dr. Thomas J. Riddell, of Richmond, Va., was the only member of the regular Committee on Nominations in attendance, the President announced the following temporary appointments to supply the places of absentees on that Committee: Drs. R. F. Gray, Danville, R. T. Ellett, Blacksburg, J. E. Chancellor, Charlottesville, and H. G. Miller, Millboro.

The Committee, in charge of the chairmanship of Dr. Riddell, retired

at once to act upon the list of applications for Fellowship. As the result of their deliberations, the following named gentlemen were nominated for Fellowship, and their nominations confirmed:*

NAMES.	POST OFFICES.	BY WHOM RECOMMENDED.
Dr. R. V. Barksdale,	Danville,	Dr. Lewis E. Harvie, Jr.
" H. J. Belt,	Whitmell,	" R. W. Martin.
" P. R. Bowen,	Stafford Store,	" L. Ashton.
" John R. Cabell,	Calland's,	" T. D. Stokes.
" Wm. C. Cabell,	Calland's,	" L. B. Edwards.
" W. C. Carter,	Danville,	" H. M. Taylor.
" N. L. Cheatwood,	Lynchburg,	" Henry Latham.
" ——— Clark,	Lynchburg,	" Henry Latham.
" Benjamin Dennis,	Matoax,	Hon. Fel. Dr. F. D. Cunningham
" Jesse Ewell, Sr.,	Hickory Grove,	Dr. Landon B. Edwards.
" Jas. E. Fergusson,	Malmaison,	" R. W. Martin.
" Franklin George,	Danville,	" W. D. Cooper.
" Chas. C. Greer,	Rocky Mount,	" L. B. Edwards.
" Barksdale Hale,	Halifax C. H.,	" L. B. Edwards.
" J. P. Harrison,	Richmond,	" L. B. Edwards.
" F. D. Hope,	Portsmouth,	" Jas. Parrish.
" Paulus A. Irving,	Danville,	" W. L. Robinson.
" P. H. Lightfoot,	Petersburg,	" L. B. Edwards.
" Henry B. Melvine,	Halifax C. H.,	" I. H. White
" John Pleasant Motley,	Danville,	" B. B. Temple.
" Wm. O. Owen, Jr.,	Lynchburg,	" Henry Latham.
" Jesse H. Peek,	Hampton,	" G. Wm. Semple.
" L. S. Pritchett,	Mount Cross,	" H. W. Cole.
" Jas. M. Scott,	Raccoon Ford,	" C. C. Conway.
" Chas. M. Shields,	Richmond,	" L. B. Edwards.
" ——— Slaughter,	Lynchburg,	" Henry Latham.
" R. M. Slaughter,	Orange C. H.,	" C. C. Conway.
" F. F. Slaughter,	Orange C. H.,	" L. B. Edwards.
" B. B. Temple,	Danville,	" T. D. Stokes.
" ——— Thornhill,	Lynchburg,	" Henry Latham.
" Joseph A. White,	Richmond,	" L. B. Edwards.

While the Committee on Nominations were engaged in preparing their report, Dr. John S. Apperson moved that an opportunity be now allowed to any of the audience to retire who might prefer doing so. Carried.

On motion of Hon. Fellow Dr. Robert S. Payne, of Lynchburg, the ladies and gentlemen in attendance were invited to be present to-morrow morning at 11 o'clock, to hear the *Annual Address of the President*.

On motion of Dr. L. B. Edwards, the Society adjourned until 10 o'clock to-morrow morning.

*The above embraces all the nominations of Applicants for Fellowship during the several days of the session. Dr. Thomas J. Riddell, of Richmond, the only member of the regularly elected Committee in attendance, acted as Chairman of the Committee on Nominations.—[Note by the Recording Secretary.]

SECOND DAY—MORNING.

WEDNESDAY, *October 20th*, 1880.

The Society was called to order at 10 A. M., by the President.

The Secretary read the minutes of the meeting of last evening, which, on motion of Honorary Fellow Dr. F. D. Cunningham, were approved.

The register of Fellows present was then read by the Secretary, and all Fellows in attendance upon this session were urged to register their names who had not already done so.

Hon. Fellow Dr. F. D. Cunningham, moved that after the address of the President, a recess of ten minutes be taken, and that the first order of business after the recess shall be the election of the President for the ensuing year. Carried.

Dr. Charles S. Brittan offered the following :

Resolved, That a committee of thirteen Fellows, representing different sections of the State, be appointed to nominate officers other than the President for the ensuing session. Carried.

The President appointed the following committee: Drs. G. William Semple, Hampton; Hon. Fellow R. S. Payne, Lynchburg; Hon. Fellow F. D. Cunningham, Richmond; Charles R. Cullen, Hanover county; C. W. Doyle, Franklin county; P. B. Bowen, Stafford county; W. L. Robinson, Danville; W. A. Wilson, Montgomery county; H. G. Miller, Bath county; W. D. Cooper, Fauquier county, J. L. Apperson, Smythe county; Hume Field, Dinwiddie county; L. Ashton, Stafford county.

The Recording Secretary presented the following annual report :

RICHMOND, VA., October 19, 1880.

Information has been received of the death of the following named Fellows : Dr. Marcellus P. Christian, Robert F. Baldwin, Samuel Selden, Chesley Martin, Charles T. Ellett, Thomas E. Ballard, James A. Agnew, B. G. McPhail, J. M. Stover, J. P. Hammet.

This information has been duly transmitted to the chairman of the Committee on Necrology, Dr. John S. Apperson, Town House, Va.

The following named gentlemen, having paid all dues in full, respectfully offer their resignations of Fellowship : Drs. George M. Raney, Edward H. Murrell.

Dr. W. H. Dennis writes that he offered his resignation in 1878, but as his accounts on the books of the Treasurer were not balanced, his offer of resignation was not acted on. It is suggested that, as he was under some misapprehension as to the law in the case, he be allowed to resign after paying up the assessments then charged against him.

Dr. S. Coates has given due information to the Recording Secretary and Treasurer that he is seventy years of age, and hence not liable for further annual assessments.

Dr. Thomas L. Hunter disclaims membership.

Letters addressed to Dr. E. N. Wood, Salem, Roanoke county, Va., have been returned to the writer from that postoffice, and his present address is unknown. It is therefore suggested that he be dropped from the Register of Fellows.

The usual Society exchanges in the form of Transactions, etc., have been received.

By direction of the President, Dr. William F. Barr was changed from the delegation to attend the Kentucky State Medical Society to that of the Tennessee Society, which met in Knoxville in April, 1880.

The following is a statistical statement of the number of Fellows, etc., embracing all information received during the eleventh annual session :

Number of active Fellows on the adjournment of the Tenth Session.....	385
Number elected active Fellows during Tenth Session.....	31
Total on Register during Eleventh Session.....	416
During the year 1879-80 there have died.....	10
Resignations accepted durring Session 1880.....	3
Non-resident Fellow elected non-resident Honorary Fellow.....	1
Active Fellow elected Honorary Fellow.....	1
Disclaims membership	1
Cannot be found.....	1
Active Fellows remaining on Register.....	399

Respectfully presented,

LONDON B. EDWARDS, *Recording Secretary.*

On motion, the report was received, and the suggestions therein contained were adopted.

On motion of Dr. G. T. Walker, of Gish's Mill, the resignation of Dr. W. H. Dennis, of Roanoke, was received, dating from the time he claims as stated in the Recording Secretary's report.

The Secretary announced the presence of Dr. R. L. Payne, of Lexington, N. C., ex-President of the North Carolina Medical Society, and moved that he be invited to occupy a seat and participate in the deliberations of the Society. Carried.

The President welcomed Dr. Payne and introduced him to the Society. Dr. Payne acknowledged the invitation in appropriate terms.

The President announced that Dr. Alban S. Payne, a member of this Society, formerly of Virginia, but now Professor of Practice of Medicine in the Southern Medical College at Atlanta, Ga., was present, and invited him to a seat on the stand.

Dr. Payne acknowledged the compliment in most happy terms.

The following report of the Corresponding Secretary, in his absence, was read by the Recording Secretary, and, on motion, received.

RICHMOND, VA., *October 18th, 1880.*

Gentlemen of the Medical Society of Virginia:

Sirs—Your Corresponding Secretary begs leave to report that since the last meeting of the Society he has written one hundred and forty-five letters and postal cards in its behalf. During that time twenty-two communications were received, all of which were attended to.

Respectfully,

CHRISTOPHER TOMPKINS, M. D.,
Corresponding Secretary Medical Society of Virginia.

The Secretary read the following letter :

ABINGDON, VA., October 19th, 1880.

I propose Henry Frazier Campbell, M. D., Professor in the Medical Department of the University of Georgia, Augusta, as an Honorary Fellow of the Medical Society of Virginia.

W. F. BARE, M. D.

On motion, Dr. Campbell was unanimously elected an Honorary Fellow of this Society.

The Committee on Nomination of Officers for the ensuing year, other than the President (Dr. G. William Semple, chairman), presented their report through their secretary, Dr. F. D. Cunningham, as follows:

Dr. HUNTER MCGUIRE, Richmond.....	President.
" LEWIS E. HARVIE, Danville.....	1st Vice President.
" J. E. CHANCELLOR, Charlottesville.....	2nd " "
" R. W. MARTIN, Chatham.....	3rd " "
" ISAAC WHITE, Shawsville.....	4th " "
" CASPAR HENKEL, New Market.....	5th " "
" BEDFORD BROWN, Alexandria.....	6th " "
" LONDON B. EDWARDS, Richmond.....	Recording Secretary.
" *M. M. WALKER, Richmond.....	Corresponding Secretary.
" CHARLES S. BRITTAN, Richmond.....	Asst. Record. Secretary.
" LONDON B. EDWARDS, Richmond.....	Treasurer.
" T. J. RIDDELL, Richmond.....	} Committee on
" J. W. DILLARD, Lynchburg.....	
" H. D. KERFOOT, Prince William county.....	
" R. W. NELSON, Charlottesville.....	
" JAMES C. GREEN, Danville.....	
" W. W. PARKER, Richmond.....	} Executive
" N. H. BURKS, Blue Ridge Springs.....	
" H. G. LEIGH, Petersburg.....	
" BENJAMIN BLACKFORD, Lynchburg.....	
" THOMAS B. WARD, Norfolk.....	
RECORDING SECRETARY AND TREASURER, <i>ex officio</i>	} Committee.
" OTIS F. MANSON, Richmond.....	
" E. T. ROBINSON, Richmond.....	
" †W. B. GRAY, Richmond.....	
RECORDING SECRETARY AND TREASURER, <i>ex officio</i>	
	} Committee on
	} Publications.

On motion of Dr. J. S. Apperson, Dr. G. William Semple was requested to cast the ballot of the Society for the election of the officers nominated. This Dr. Semple proceeded to do, after which the several gentlemen named in the report of the committee were declared duly elected to the offices opposite their names, to be installed to-morrow morning.

Dr. L. B. Edwards, Recording Secretary, then announced the appointment of Dr. Charles S. Brittan, of Richmond, Va., as Assistant Recording Secretary for the ensuing year, in accordance with a resolution adopted at the Ninth Annual Session.

The hour of 11 having arrived, Dr. Henry Latham proceeded to deliver

* A letter was read from Dr. Christopher Tompkins, stating that owing to pressing duties claiming his attention, he would be unable to attend to the duties of Corresponding Secretary for another year, and begged leave to decline re-election to that office, whereupon Dr. Walker was elected.

† The Committee on Nomination of Officers stated that Dr. J. S. Wellford declined re-election on the Committee on Publication.

the *Address of the President*. Many ladies and gentlemen being present by invitation extended last evening. [See page 155.]

After the President's address, in accordance with a resolution offered by Hon. Fellow Dr. F. D. Cunningham, a recess of 10 minutes was taken.

At the expiration of the recess, the President called the Society to order

On motion of Dr. Joseph A. White, of Richmond, thanks were returned to the President for his able and valuable address, and it was referred to the Committee on Publications, with instructions to publish.

On motion of Hon. Fellow Dr. Robert S. Payne, of Lynchburg, Dr. Henry Latham, the retiring President, was unanimously elected an Honorary Fellow of the Society.

On motion of Hon. Fellow Dr. R. S. Payne, Dr. Alban S. Payne, of Atlanta, Ga., was elected a non-Resident Honorary Fellow of the Society.

The Society then proceeded to elect a President for the ensuing year.

Dr. G. William Semple, of Hampton, nominated Dr. Hunter McGuire, of Richmond.

Dr. M. M. Walker, of Richmond, seconded the nomination of Dr. McGuire.

Dr. William C. Dabney, of Charlottesville, nominated Dr. J. S. Wellford, of Richmond.

Dr. J. E. Chancellor, of Charlottesville, nominated Dr. W. L. Robinson, of Danville.

Dr. Dabney, at Dr. Wellford's request, withdrew his nomination.

At the request of Dr. Robinson, Dr. Chancellor withdrew his nomination.

On motion of Dr. M. M. Walker, Hon. Fellow Dr. R. S. Payne was requested to cast the ballot of the Society for Dr. Hunter McGuire.

This being done, Dr. McGuire was declared duly elected; and Dr. M. M. Walker, Hon. Fellow R. S. Payne and G. William Semple were appointed a committee to conduct the President elect, Dr. McGuire, to the chair.

Dr. McGuire returned thanks to the Society for the unexpected honor conferred upon him.

On motion of Dr. W. C. Dabney, of Charlottesville, the Society adjourned to meet at 3:30 P. M.

SECOND DAY.—AFTERNOON.

The Society was called to order at 3.30 P. M., by the President, Dr. Henry Latham.

Dr. J. E. Chancellor said that he had been requested by Dr. W. B.

Towles, of the University of Virginia, to state that he had not had the opportunity nor material from which to prepare a report upon *Advances in Anatomy and Physiology*.

Dr. H. W. Cole, of Danville, Va., reporter on *Advances in Chemistry, Pharmacy, Materia Medica, and Therapeutics*, stated that he had been unable to prepare a report, and begged leave to be relieved from the duties of chairman of the above committee. Granted.

A statement was received from Dr. George Ben Johnston, of Richmond, reporter on *Advances in Surgery*, that he had not been able to complete his report in time for this meeting, and asked that he be granted sufficient time to finish his report for the Committee on Publications. Granted.*

A letter was read from Dr. J. Grattan Cabell, of Richmond, stating that on account of other pressing duties, he had not been able to prepare a report on *Advances in Hygiene and Public Health*.

Dr. J. S. Apperson, of Smyth county, stated that the *Necrological Committee* had a partial report to present, but had not had sufficient time to compile all the papers on hand and to be presented.

On motion of Dr. Charles S. Brittan, the committee was granted time, provided their report be in the hands of the Publishing Committee in time for the forthcoming volume of Transactions. [See page 229.]

The following letter was then read by the Recording Secretary:

RICHMOND, October 19th, 1880.

H. Latham, M. D., President Medical Society of Virginia:

Dear Sir—It is with great regret that I cannot be with you at this meeting, and especially that I will not be able to make a report on the Mineral Springs, as the chairman of the committee appointed for that purpose. I have exhausted every effort to get material; I have sent printed circulars, at my own expense, to all the springs and their owners; I have personally visited some of the springs and asked for assistance, and all to no effect. I therefore resign my position as chairman of a committee where I can do no good.

Yours truly, J. B. McCaw.

On motion, the communication was received and the resignation accepted.

The paper from Dr. J. Lewis Dorset was then presented, and, on motion of Dr. Brittan, referred to the Committee on Publications without reading.†

*Dr. Johnston has informed the Secretary that he would not be able to complete his report in time for publication.—*Note by Recording Secretary.*

†The Committee on Publications share in the general wish of the Society to have the mineral waters of Virginia thoroughly investigated as to their therapeutic qualities, etc. But as the paper of Dr. Dorset relates to only one of the many Virginia springs, and as it expresses merely the individual opinions of the author, which should first have been considered or reviewed by the Committee on Mineral Waters, and as there is no request, either from that Committee or from the Society, to publish it in this volume, and in the apprehension that to publish this paper, at present, commendatory of only one of the springs of Virginia, some misunderstanding might be created in the minds of those who wish to advocate other native mineral waters—in view of these considerations, and others not requiring mention, the Committee on Publications deem it more prudent at present not to publish this paper.

Dr. G. William Semple, of Hampton, Va., chairman of the Committee on *Advances in Practice of Medicine*, read his report. After the reading of the report, it was, on motion of Hon. Fellow Dr. R. S. Payne, of Lynchburg, referred to the Committee on Publications, with instructions to publish. [See page 175.]

Dr. W. C. Dabney, of Charlottesville, reported the following case of *Hepatic Abscess*, suggested by the report just presented: He stated that he had recently seen a case of hepatic abscess in a gentleman aged 55, who had never been exposed to malaria and had never suffered with any other trouble. No cause could be found indeed, except possibly exposure to the heat. The singular feature of the case, however, was the total absence of any enlargement which could be detected by the most careful percussion and palpation. At the autopsy, when the abdomen was opened, there was, at first sight, not the slightest evidence of disease, but on raising up the liver, in the back part of the right lobe was found an abscess containing about one and one-half pints of pus and broken down hepatic tissue. The gentleman was very stout, and there had been very little loss of flesh. The cerebral symptoms mentioned by Hammond were not very marked. He was sick about six weeks only, and death was caused by exhaustion, as the abscess had not broken.

Dr. T. J. Riddell, of Richmond, read a paper entitled, *The Status of the Medical Profession of Virginia*, which, on motion, was referred to the Committee on Publications. [See page 207.]

The Secretary read the following letter from Dr. William J. Jous, of Waynesboro, Va.:

WAYNESBORO, VA., October 6th, 1880.

To the Members of the Medical Society of Virginia:

Gentlemen and Fellows,—I submit to you my case, and earnestly ask you to prescribe some means of cure if possible to do so:

About five or six years ago, while suffering from constipated bowels, being busily engaged in practice, I neglected to use any means of relief for this until I found that the hard feces, in passing away, had caused a fissure in the posterior margin of the anus. I neglected to do anything for this more than to keep my bowels soluble, until in a few months I had to begin the use of warm water injections and the application of ointments. Up to this time I have used every remedy known to me except the knife. The fissure has been cauterized time and again, and I have daily applied ointments, such as iodoform, glycerite of tannin, oxide of zinc, salicylic and carholic acids in various proportions and combinations. With these means, I was able to pursue my profession until last spring. I had quite a severe attack of dysentery, which developed about my anus along the perineum and over the sacrum an eczematous eruption, from which I have suffered more than language can describe. Under it my health has given away, until at times I am almost reduced to helplessness. This eruption begins with intolerable itching, then *whelps* form of various sizes, and in 24 or 36 hours, though I refrain from rubbing, the skin becomes abraded, and these abraded surfaces become very sore, the itching continuing all the time. Like Cain, when the Almighty cursed him, I feel frequently that my punishment is greater than I can bear. While the perineum and sacral region are

thus affected, around the margin of the anus may be found a number of fine cracks or fissures. Please put your heads and your knowledge together, and, if possible, do something to relieve. If able to do so, I would gladly exhibit myself in person to you all, but I cannot bear the ride to Danville.

Yours truly,

W. J. JONES.

Dr. McGuire, in reply to Dr. Jones' communication, stated that the most certain cure for fissure ani was to cut through the fibres of the sphincter ani, involved in the fissure—not through the whole sphincter, but only those embraced in the fissure. The cut should be the entire length of the fissure, and about one or two lines in depth. Another plan, but less surgical in appearance, was to paralyze the sphincter by over-stretching. He arose, however, to say that the day was coming when operative interference for many diseases of the rectum would be abandoned. Already we could get rid of most hæmorrhoids by the use of local and other remedies, without resorting to the knife, écraseur, or ligature. He had seen fissure cured by the local application of hydrate of chloral. The solution, gr. ij to the 3, should be constantly applied by means of linen or cotton. The constipation should be overcome by simple purgatives. In a case like that he thought sulphur the best. He used chloral locally, in private and in hospital practice, quite extensively. It was the best application he had ever seen for old sores, burns, blisters, etc. He had found a douche of it in the ear for otorrhœa, or nose for ozœna, the best local application he had ever tried.

He had found it, also, to be the most powerful antiseptic that we had. By actual experiment, it would prevent putrefactive changes for a longer time than carbolic acid. He had used it in place of carbolic acid, in Lister's antiseptic treatment of wounds. He intended, hereafter, to use it in operations of ovariectomy.

Dr. Alban S. Payne suggested the frequent use of Epsom salts to relieve the itching.

Dr. J. S. Apperson stated that he hoped the Society would find it convenient to give this case a patient and careful hearing, coming, as it does, as an appeal for help from a professional brother and Fellow of the Society. While he did not know Dr. Jones personally, his sympathy, at least, was with him. Taken all in all, the case was one of more than ordinary interest, and should be so regarded by this Society.

Because of its disinfectant and antiseptic properties, and also because of some peculiar effect it had in cleansing suppurating sores, and modifying the nature of indolent excoriations and abrasions generally, Dr. McGuire had suggested the local use of chloral hydrate in aqueous solution; and, by all means, it ought to be tried as suggested. The Doctor's remarks, however, applied more especially to the anal trouble. And be this what it may, fissure or not, there seems to be another pathological condition,

equally annoying and troublesome, if not more so than this—that is the eruption of the skin on the perineum and neighboring parts—an eczema, perhaps, which calls for treatment. There is here, too, another important and interesting question in the inquiry as to the *role* played by these different conditions or diseases, and how far each contribute to the other. Did the constipation supply a factor in producing fissure or anal excoriations, and from these arise the pruritus and eczema? or did the eruption ante-date the other condition, though not noticed primarily; and from this developed the lesions complained of at the anus?

As was implied by the remarks of Dr. McGuire, the anti-pruritic effect of chloral may be a source of relief to Dr. Jones.

Evidently, the treatment must be both local and general. If a fissure exists, let it be operated upon and the parts put at rest.

If Dr. Payne's salts can be aided by a prolonged stay at some of our sulphur springs, good might result. But use any treatment he may, it must be persisted in. Many of these eruptions are over-treated—that is, patients fly from one thing to another, as if in a hurry to get through the list as soon as may be, without giving any one course a fair trial.

On motion, the Society then adjourned, to 7:30 P. M.

SECOND DAY—NIGHT.

The Society was called to order by the President, Dr. Henry Latham.

The Secretary announced that Dr. Hunter McGuire, of Richmond, had a case of some interest which he wished to present to the Society, and moved that he be allowed to do so at once. Carried.

Dr. McGuire brought before the Society a boy, aged 12 years, upon whom, with the assistance of Dr. W. L. Robinson, of Danville, he had operated three years before for caries of the upper one-half of the tibia. In the operation the tibia was cut in two, about the middle of the shaft of the bone, and except a small part which articulated with the fibula, and the surfaces upon which the semi-lunar cartilages rested, was entirely removed. The periosteum was carefully stripped off and left. The result was exceedingly gratifying. The boy walks with a lameness which is scarcely perceptible. New bone has been generated, and the severed tendons formed new attachments.

Dr. McGuire stated that during the war he removed nearly, if not quite one-half of the tibia from a soldier—the injury requiring it being a gunshot wound. The man made a good recovery; that is, he had a useful leg, with but little deformity or halt in gait.

Dr. Henry Latham stated that, so far as the restoration of bone after its removal is concerned, without any lameness resulting, he knew of a similar

case which came under the care of Dr. W. O. Owen, of Lynchburg, several years ago. The following were the circumstances: A child about five years of age fell from the abutment of a bridge and received a fracture of the thigh bone; the lower end of the bone protruded, probably, about an inch. The bone being loose, it was withdrawn, without the least force in extracting, leaving behind the entire periosteum. The limb was treated by the usual manner for compound fracture, and recovered, with entire restoration of bones, and without the slightest perceptible lameness. If he recollects aright, the piece of fractured thigh bone removed was about four inches in length, and is now in the possession of Dr. Owen.

Dr. John S. Apperson referred to a somewhat similar case, which had come under his observation, the result being very little perceptible permanent impairment of motion.

Honorary Fellow Dr. A. S. Payne, of Atlanta, Ga., added some remarks on the subject. Just after the late war it fell to his lot to see three cases very similar to the one described by Dr. McGuire, illustrating the repair of removed bone tissue. His experience was in full accord with that of Dr. McGuire, every word of whose remarks he cordially endorsed.

The Secretary read the following report of the Committee on Publications:

RICHMOND, VA., October 18, 1880.

Mr. President:—Your Committee on Publication would respectfully report that they have performed the duties assigned to them, and the members can judge of the manner the *Transactions* have been published by the number sent each one. Some discussion having arisen in the Society in relation to the mode of publication and the consequent cost, the facts will be laid before the Society in the accounts of the Treasurer. But the Committee deem it due to themselves to say that, under the circumstances, although a larger number of copies of the *Transactions* were published than was necessary for distribution among the members, still they considered it judicious to do so, as they thereby saved the postage and other incidentals, which fully compensated the Society for the additional expense.

All of which is respectfully submitted,

J. S. WELFORD, *Chairman Com. on Publication.*

On motion of Dr. G. Wm. Semple, the report was adopted.

Dr. L. B. Edwards moved that Dr. W. C. Dabney, of Charlottesville, be requested to read his paper on *The Practical Bearings of Recent Advances in Cerebral Localization and Cerebral Thermometry*. Carried.

Dr. R. T. Styll, of Richmond, asked what disposition had been made of the report of the Committee on Publication.

The President stated that the report had just been adopted.

Dr. Semple remarked, that as he had made the motion to adopt the report, he would now move a reconsideration of the vote adopting the report, if any Fellow desired to discuss the same.

The motion to reconsider being put, was carried.

Dr. C. A. Bryce, of Richmond, then offered the following resolution :

Resolved, That the Society instruct the Committee on Publication to issue its annual volume of *Transactions* in the future in pamphlet form, and separate and distinct from any medical journal or other publication ; and that the publication of said *Transactions* be awarded the lowest bidder, after duly inviting such bids ; and that the number of copies be limited to a number sufficient to supply the members and usual exchanges.

Dr. Semple objected to this resolution, on the ground that it was not cognate to the subject ; stating that the question before the Society was the adoption of the report of the Committee on Publication—not as regards the future publication of the *Transactions*.

Dr. Bryce asked when would his motion be in order.

The President stated that the resolution would be in order at any time after the present business before the Society was disposed of.

After some further discussion of the subject by Drs. Bryce, Riddell, Semple, Styll, Dabney, Hon. Fellow R. S. Payne, R. W. Martin, and Wellford, on motion, the report was adopted.

Dr. Bryce again presented his resolution, and urged its adoption.

After some discussion of the subject by Drs. Bryce, McGuire and Apperson, Dr. McGuire offered the following as a substitute for Dr. Bryce's resolution, which was adopted :

Resolved, That the mode of publication and distribution of the minutes be referred to the Committee on Publications, with instructions to do what they consider for the best interests of the Society.

Dr. Wm. C. Dabney, of Charlottesville, read a volunteer paper, entitled, *The Practical Bearing of Recent Advances in Cerebral Localization and Cerebral Thermometry*.

Dr. Semple moved that the paper of Dr. Dabney be referred to the Committee on Publications, with instructions to publish ; and that cuts be made of Dr. Dabney's drawings to be published along with the paper. Carried.

Dr. Edwards stated that he had been requested by the Local Committee to ask members of the Society not to leave until after the banquet tomorrow night.

Hon. Fellow Dr. F. D. Cunningham made a statement of his attendance on the American Medical Society, and said that the Society had designated Richmond as the next place of their next annual meeting, and next May as the time.

Dr. Chancellor then made some remarks on the subject.

Dr. Semple made some remarks on the same subject.

Dr. J. E. Chancellor, of Charlottesville, said we all know what Virginia hospitality means. We are all coming to the metropolis of Virginia at this grand meeting of physicians. We may not have 1300 members of the Association in attendance, but we will have a large delegation. It will tax

the Profession of the city to too great a degree; therefore, he offered the following resolution:

Resolved, That each individual Fellow of the Society should contribute of his means to the fund, being raised by the Richmond Medical Faculty, for the entertainment of the American Medical Association.

Dr. Semple concurred in the suggestion of Dr. Chancellor, and seconded his resolution. Let each delegate appointed by the President constitute himself a member of a committee to solicit contributions from his professional brethren throughout the State, and the laity as well, for the entertainment of the American Medical Association, at its meeting in the city of Richmond next May.

The resolution was adopted.

Dr. Latham called Dr. McGuire to the chair, and addressed the Society at length in regard to the following resolution:

Resolved, That the initiation fee be dispensed with.

Dr. Edwards stated that he would be glad to second the motion of Dr. Latham; but, owing to the fact that this resolution would have to come up as an amendment to the Constitution, which would require a four-fifths vote of all members present, or a two-thirds vote if advertised through the Executive Committee one month previous to a session of the Society, he would suggest that the initiation fee of two dollars be charged, as heretofore; but that the first year's annual assessment (which has heretofore never been over two dollars) be remitted.

Dr. Cooper, of Morrisville, said that as the Society was out of debt, he would offer Dr. Edwards' suggestion as an amendment to Dr. Latham's motion. Dr. Latham accepted.

The amendment was then adopted as follows:

Resolved, That in the case of new members, the first year's annual assessment be omitted from their charges—beginning with the session to be held next year.

Dr. G. Wm. Semple, having learned that Dr. J. A. White, of Richmond, had a paper for this session, moved that he be requested to read his paper.

Dr. White stated, that, with the permission of the Society, he would prefer reading his paper to-morrow.

Dr. Semple then moved that the reading of Dr. White's paper be made the first order of business at to-morrow morning's session. Carried.

Dr. Latham spoke in regard to the failure of the various Committees on Advances in different branches of Medicine, to report; and offered a resolution, changing the mode of reporting. After some discussion, the whole subject was laid on the table until to-morrow morning.

On motion, the Society went into the election of a Fellow to deliver the Annual Address to the Public and Profession, at the next annual meeting of the Society.

Dr. G. Wm. Semple nominated Dr. M. M. Walker, of Richmond, who was unanimously elected.

On motion of Dr. Apperson, the Society went into the election of a place at which to hold the next Annual Session of the Society.

Dr. Edwards nominated Winchester; urging the selection of this place on the grounds of the great advantage to be derived by the Society by meeting in that section of the State.

Dr. Hume Field nominated the Blue Ridge Springs.

After some discussion, the vote, being taken, resulted in the selection of Winchester.

On motion of Dr. Edwards, the Society adjourned until 10 A. M. to-morrow.

THIRD DAY—MORNING.

THURSDAY, *October 21st, 1880.*

The Society was called to order at 10 A. M., by the President.

On motion, the reading of the minutes of yesterday's proceedings was omitted.

Dr. R. L. Payne, of North Carolina, stated that the North Carolina Medical Association would meet during the third week in May, 1881, at Asheville, N. C., and gave a most cordial invitation to the delegates from this Society to attend—urging them by all means to do so—pledging them a warm reception by the Old North State.

Dr. Joseph A. White, of Richmond, read a paper entitled *Some Remarks about a Common Functional Eye Trouble—Asthenopia, or Weak Eyes.*

On motion of Dr. Edwards, after the reading of the paper, it was referred to the Committee on Publications, with instructions to publish. [See page 194.]

Dr. Semple stated that Dr. Charles R. Cullen, of Hanover county, had a paper, and moved that he be requested to read it at this time. Carried.

Dr. Cullen then read his paper on *New Remedies*; which, on motion of Dr. Semple, was referred to the Committee on Publications, with instructions to publish. [See page 225.]

The Secretary announced the reception of a paper on *Surgery*, from Dr. Greenville Dowell, of Texas; and stated that it had been the intention of Dr. Dowell to be present at this session, but he had been prevented by unavoidable circumstances.

On motion, the paper was referred to the Committee on Publications, without reading, with instructions to use their discretion as to publication.*

The Secretary stated that a paper had been received from Dr. John J. Caldwell, of Baltimore, Md., entitled *The Study of Special Nerve Centres*, sent by special request of the Abingdon Academy of Medicine. After some discussion, the paper was, on motion of Dr. A. S. Payne, referred to the Committee on Publications, with instructions to use their discretion in regard to publishing.*

Dr. Joseph A. White, of Richmond, offered the following resolution, which was adopted :

Resolved, That no paper be received from non-members of the State Society, unless such non-member be specially invited to read a paper, and do so himself.

The Secretary announced the presence of Dr. H. T. Bahnson, of Salem, N. C., a duly appointed delegate from the Medical Society of North Carolina.

The President welcomed Dr. Bahnson, introduced him to the Society, and invited him to occupy a seat, and participate in all its deliberations.

Dr. Bahnson acknowledged the courtesies extended in most appropriate terms.

Dr. Landon B. Edwards presented the following as the report of the Treasurer :

DANVILLE, VA., Oct. 21, 1880.

The Treasurer has the honor to make the following report for the current year (1879-80) just ended: Received—

Amount of balance on hand at last annual report.....	\$ 2 58
Amount of Initiation Fees collected.....	40 00
Amount of Annual Assessments collected.....	601 00

Total collected.....	\$643 58
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Expended :

Paid janitor in Alexandria.....	\$ 3 00
Paid bill Corresponding Secretary for postage.....	4 20
Paid express on Transactions.....	2 45
Paid for ledger and day-book of Treasurer.....	12 00
Paid Corresponding Secretary for postage.....	3 62
Paid Messrs. J. W. Fergusson & Son, Richmond, Va., for printing Transactions of 1879.....	181 85
Paid for paper used in publishing Transactions 1879.....	99 00
Paid for 1000 four page Circular Announcements of session 1879... ..	8 00
Paid letter postage of Recording Secretary.....	15 00
Paid salary of Recording Secretary	300 00

Amount carried forward	\$629 12
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*In regard to Dr. Dowell's paper, as also the one by Dr. Caldwell, the Committee on Publications—especially in view of the resolution presented by Dr. White, which was adopted and which is recorded on this page—deemed it best to return the papers to the respective authors, with the suggestion that the writers publish their articles in some regular journal of their selection. Both of the gentlemen selected the *Virginia Medical Monthly*, and the papers are published in the January No., 1881.

Amount brought forward	\$629 12
Of the total amount of receipts, \$2.58 (amount from balance on hand after report for 1879), and \$40.00 (collected from Initiation Fees), the Treasurer is not entitled to the ten per cent. commission on.. ...	\$ 42 58
Amount of Annual Assessments collected, on which the Treasurer is entitled to ten per cent. commission, which he hereby relinquishes.....	\$601 00
Total amount collected.....	\$643 58
Deduct expenditures, &c.....	629 12
Balance on hand.....	\$ 14 46

Respectfully submitted.

LANDON B. EDWARDS, TREASURER, &C.

On motion of Dr. Edwards, the report of the Treasurer was referred to an Auditing Committee of three Fellows.

The President appointed Drs. P. H. Lightfoot, of Petersburg, Jacob Michaux, of Michaux's Ferry, and Hugh M. Taylor, of Richmond.

The next order of business—The Present System of Reporting on Advances in the Various Branches of Medicine—laid on the table last night until this morning—was then taken up and discussed.

Dr. Semple offered the following, warmly supporting the same:

Resolved, That, in future, the President shall, at each annual meeting, appoint a Fellow to prepare a paper on each of the several branches of medical science, to be read at the next meeting, the Fellow appointed to select the subject thereof; and also that each Fellow will be expected to report some case to the Society.

Hon. Fellow Dr. R. S. Payne, said that two gentlemen from North Carolina were present, and moved that they be invited to participate in the discussion. Carried.

Dr. R. L. Payne, of North Carolina, spoke in opposition to our present system, and thought voluntary papers much the best plan.

Dr. H. T. Bahnson, of North Carolina, stated that he was not prepared to offer any advice on the subject. There were advantages in the present system, if the Reporters would attend to their duties.

Dr. C. R. Cullen objected to Dr. Semple's motion.

Dr. J. S. Apperson offered the following as a substitute to Dr. Semple's resolution:

Resolved, That the Committees on Advance in Anatomy and Physiology, in Chemistry, Pharmacy, Materia Medica and Therapeutics, in Obstetrics and Diseases of Women and Children, in Surgery, in Practice of Medicine, in Hygiene and Public Health, will be expected to report on only such subjects of advance as they may select.

Hon. Fellow Dr. R. S. Payne objected to Dr. Apperson's resolution, and said that he preferred Dr. Semple's plan.

Dr. Apperson spoke at length in favor of his resolution; he was in favor of any plan that would get scientific work out of the Fellows of the Society.

After further discussion and several motions to lay on the table, on motion of Hon. Fellow R. S. Payne, Dr. Semple's resolution was adopted.

On motion of Dr. Henry Latham, the vote selecting Winchester as the place at which to hold the next Annual Session, was reconsidered.

Dr. Chancellor moved that the Society meet at the Blue Ridge Springs next year.

Dr. Ashton moved to substitute Warrenton.

Dr. Cooper seconded the motion of Dr. Ashton; and said, that while he was not authorized to do so by the local society, he would most cordially, in behalf of the profession of the State, and people of Fauquier county, invite the Society to hold its next Annual Session at Warrenton. He thought it a good place to bring the doctors.

The vote being taken, Warrenton was selected.

Dr. W. L. Robinson, of Danville, read a paper on *Typho-Malarial Fever*.

The paper was, on motion of Dr. Brittan, referred to the Committee on Publications, with instructions to publish.*

The Auditing Committee, through their Chairman, Dr. P. H. Lightfoot, submitted the following report, which, on motion of Dr. Charles R. Cullen, was adopted:

Mr. President,—We, the undersigned Auditing Committee, desire to report, after careful examination, that we have found the report of the Treasurer, as shown by his books, to be correct.

We find that the receipts for the year past have amounted to \$643.58; and that the expenditures have been \$629.12; leaving a balance in the Treasury of \$14.46.

The amount now due the Society is about \$800.00.

Very respectfully,

P. H. LIGHTFOOT,
JACOB MICHAUX,
HUGH M. TAYLOR.

On motion, the report was received and adopted.

On motion, the Society adjourned to meet at 3.30 P. M.

THIRD DAY—AFTERNOON.

The Society was called to order at 3.30 P. M., by the President, Dr. Hunter McGuire.

Dr. Semple, after reading some papers from the Surgeon-General of the United States Marine Hospital Service, offered the following resolution, which was adopted:

Resolved, That the Medical Society of Virginia respectfully and most earnestly requests the Senators and Representatives in Congress from Virginia, to give their active support to "A Bill to Increase the Efficacy of the Marine Hospital Service;" read twice, and referred to the Committee on Commerce, 1880, May 4 (40th Congress, 2d Session), S. 1718. This Society is well satisfied that the object of the Bill—sketched in the title, and read in full and discussed by this body—will not only be economically accomplished, but that the advance of medical science will be greatly promoted thereby.

*The Committee on Publications regret that Dr. Robinson's paper has not been received, although he has been specially written to requesting him to forward the manuscript.

The next order of business was the discussion of the subject selected for general debate: *Summer Complaint of Children*. [See page 212.]

On motion of Dr. Henry Latham, this subject of *Summer Complaint of Children* was continued over until next year as the regular subject for discussion.

Dr. Edwards stated that he had been requested to urge all the Fellows to remain until after to-night, to attend the banquet prepared by the Profession of Danville.

The Secretary read the following report from Dr. Frederick Horner, Jr., of Fauquier county, chairman of Committee on the Organization of a *Mutual Medical Aid Association*:

Report of Committee on the Organization of a Mutual Medical Aid Association by the State Medical Society of Virginia:

Your Committee, appointed to consider a plan for the organization of a Mutual Medical Aid Association—the aim of which shall be to raise a permanent fund for the relief of the families of deceased physicians of Virginia—have the honor to report that they have conferred with each other, by correspondence, during the interval since the last session, and with prominent physicians connected with such benevolent Associations in other States. The latter, especially in Pennsylvania and Kentucky, have furnished proofs of their success.

There can be no reasonable doubt of the importance and practicability of such a scheme. The urgent duty cannot be too earnestly pressed upon the Fellows of the Society, to give a prompt and liberal support to it. While every consideration is given by physicians to promote the public weal and health, there can be no excuse any longer for them to ignore the claims of the widows and orphans within their own household—practically saying to them, “depart in peace; be ye warmed and filled; notwithstanding ye give not those things which are needful to the body.”

Your Committee would repeat their approval of the plan of organization as presented at the last meeting of the Society, viz.: Each member of the Association shall be required to pay to the Treasurer an initiation fee of one dollar, and be assessed \$1, \$1.30, or \$1.50, according to age, on the occasion of the death of a member; the funds to be disbursed by the Treasurer of the Association and paid over without delay to the family of the deceased physician.

Further, they would recommend the creation by the Society of a “*Section of Benevolence*,” and composed of the best, most honest and upright men, whose labor and duties shall be to make a regular and annual report of the proceedings of the “*Section of Benevolence*,” the amounts of money collected and expended, and also the draft of a constitution and by-laws.

In conclusion, your Committee are unable to recognize an objection to a trial of the experiment to raise funds to be applied for the relief of the destitute. Our medical brethren are no exceptions to the accidents, financial distress, and even immoralities of human life; and not unfrequently at death leave their families without support or resources of education. Let our effort be to relieve this class.

FREDERICK HORNER, JR., M. D.

On motion, on account of the absence of the committee, the committee was continued for another year.

Dr. Charles S. Brittan presented the following and urged its adoption:

Resolved, That hereafter the subject for general discussion be made the special order of business, immediately following the President's address on the second day. Carried.

On presentation of Dr. Hunter McGuire, it was

Resolved, That the thanks of the Society be tendered to the citizens and Profession of Danville, for the cordial reception and liberal hospitality extended to Fellows and delegates whilst in attendance at this session of the Society.

On presentation of Dr. L. B. Edwards, it was

Resolved, That the thanks of the Society be voted to all railroads and steamboat companies of the State, which had reduced rates to Fellows in attendance upon this session.

On presentation of Dr. Charles S. Brittan, it was

Resolved, That the sum of five dollars be voted to the janitor of this hall for waiting upon Fellows during the session, and that the Treasurer be requested to pay the same.

On presentation of Hon. Fellow Dr. R. S. Payne, it was

Resolved, That the thanks of the Society be extended to the Odd Fellows of the city of Danville for permitting the Society to hold its Eleventh Annual Session in their most beautiful hall.

On motion, the Society adjourned to meet next year in Warrenton, in a hall and at a time to be definitely arranged by the Executive Committee.

In accordance with the invitation extended, the Fellows of the Society and their guests, besides a large number of the representative citizens of Danville, assembled in the spacious dining-room of the Arlington Hotel at 9 P. M., October 21st, 1880, where they were treated to a most tastefully arranged and bountifully supplied table. Toasts soon became the order of the hour, and unalloyed merriment continued for several hours.

APPOINTMENTS, ETC.

Officers for term 1880-81 : See page 245.

Place of Meeting, 1881 : Warrenton, Va.

Time of Meeting : To be announced hereafter by the Executive Committee.

Elected to Deliver Annual Address to the Public and Profession : Dr. M. M. Walker, Richmond, Va.

Chairmen of Committees to report on :

- (1) *Advances in Anatomy and Physiology* : Dr. Christopher Tompkins, Richmond, Va.
- (2) *Advances in Chemistry, Pharmacy, Materia Medica and Therapeutics* : Dr. Charles R. Cullen, Hanover county, Va.
- (3) *Advances in Obstetrics and Diseases of Women and Children* : Dr. J. Herbert Claiborne, Petersburg, Va.
- (4) *Advances in Surgery* : Dr. Meade C. Kemper, Botetourt county, Va.
- (5) *Advances in Practice of Medicine* : Dr. Bedford Brown, Alexandria, Va.
- (6) *Advances in Hygiene and Public Health* : Dr. J. Grattan Cabell, Richmond, Va.

Necrological Committee : John S. Apperson, Town House, Smyth Co., Va.; S. B. Morrison, Brownsburg, Rockbridge, Va.; W. J. Moore, Norfolk, Va.

Delegates to the American Medical Association, 1881 : Drs. Harvey Black, Williamsburg ; S. C. Gleaves, Wytheville ; J. H. Claiborne, Petersburg ; A. M. Fauntleroy, Staunton ; R. S. Payne, Lynchburg ; A. G. Tebault, London Bridge, Princess Anne ; Henry Latham, Lynchburg ; G. William Semple, Hampton ; S. K. Jackson, Norfolk ; H. G. Leigh, Petersburg ; James L. White, Farmville ; James C. Green, Danville ; William L. Robinson, Danville ; R. L. Martin, Chatham, Pittsylvania Co. ; John S. Apperson, Town House, Smyth Co. ; Jerry Farmer, Dublin, Pulaski Co. ; William F. Barr, Abingdon ; J. Alex. Waddell, Staunton ; W. S. Love, Winchester ; H. D. Kerfoot, Berryville, Clarke Co. ; M. M. Lewis, Alexandria ; George Wm. Pollard, Aylett's, King William Co. ; W. D. Cooper, Morrisville, Fauquier Co. ; J. W. McIlhany, Warrenton ; J. S. Davis, University of Virginia ; S. W. Carmichael, Fredericksburg ; L. Ashton, Falmouth ; A. W. Fontaine, New Canton, Buckingham Co. ; Jacob Michaux, Michaux's Ferry, Powhatan Co. ; Charles R. Cullen, Richmond, Va. ; E. A. Drewry, Drewrysville, Southampton Co. ; R. H. Cox, Shackelfords, King and Queen ; O. F. Manson, Richmond ; L. B. Edwards, Richmond ; James B. McCaw, Richmond ; M. M. Walker, Richmond ; C. W. P. Brock, Richmond ; George Ross, Richmond ; J. N. Upshur, Richmond ; James E. Pharr, Simmonsville, Craig Co.

Alternates : Drs. Wm. P. McGuire, Winchester ; W. Otho Mott, Leesburg ; Gabriel McDonald, Union, West Va. ; Z. G. Walker, Brownsburg, Rockingham Co. ; J. St. P. Gibson, Staunton ; Lewis E. Harvie, Dauville ; Hugh Stockdell, Petersburg ; H. G. Miller, Milborough, Bath Co. ; Cyrus McCormick, Berryville, Clarke Co. ; E. W. Row, Orange Court House ; A. Trent Clark, South Boston, Halifax Co. ; B. F. Dunn, Gordonsville ; Hugh M. Taylor, Richmond ; R. M. Slaughter, Orange Court House ; T. B. Greer, Rocky Mount, Franklin Co. ; O. B. Finney, Onancock, Accomac Co. ; W. O. Hill, Harrisonville.

Delegates to North Carolina Medical Society : Henry Latham, Lynchburg, Va. ; L. B. Edwards, Richmond ; S. C. Gleaves, Wytheville ; Albert Fairfax, Ore Mines, N. C. ; J. E. Chancellor, University of Virginia.

Delegates to Medico-Chirurgical Faculty of Maryland : Bedford Brown, Alexandria ; W. C. Dabney, Charlottesville ; S. J. Holliday, Winchester ; J. A. White, Richmond.

Delegates to Medical Society of West Virginia : G. McDonald, Union, Monroe Co., West Va. ; D. C. Pharr, Gap Mills, Monroe Co., West Va. ; H. T. Nelson, News Ferry, Halifax Co., Va. ; J. S. Guyer, Middletown, Frederick.

Delegates to South Carolina Medical Association : T. D. Stokes, Danville ; W. B. Towles, University of Virginia ; R. C. Powell, Alexandria.

Delegates to the Medical Association of Alabama : G. Wm. Semple, Hampton ; Wm. H. Bramble, Newbern, Pulaski Co. ; O. H. Baird, Waverly, Sussex Co.

Delegates to the Florida Medical Association : Z. B. Herndou, Richmond ; W. S. Stoakley, Bay View, Northampton Co.

Delegtes to the Tennessee Medical Society : R. J. Preston, Abingdon, Va. ; W. B. Conway, Blacksburg, Va. ; Oscar Wiley, Salem, Roanoke.

Delegates to the Georgia Medical Society : J. E. Chaucellor, University of Virginia ; W. P. Nicholou, Atlanta, Ga. ; A. S. Payne, Atlanta, Ga. ; William D. Hooper, Liberty, Va. ; T. B. Greer, Rocky Mount, Franklin county.

Delegates to the Kentucky Medical Society : James F. Harrison, Union, Va. ; S. B. Morrison, Brownsburg, Rockingham ; A. Z. Koiner, Big Lick, Roanoke.

Delegates to the Texas Medical Association : E. A. Chancellor, 11th street and Washington avenue, St. Louis, Mo. ; J. Grattan Cabell, Richmond.

Delegates to the Medical Association of Mississippi : M. W. Eggleston, St. Joseph, Tensas parish, La. ; H. W. Cole, Danville.

APPLICANTS FOR FELLOWSHIP.

NOTE BY RECORDING SECRETARY.

Those who design uniting themselves with the Medical Society of Virginia, should observe the following instructions in sending in their applications to the Recording Secretary. Write plainly—

Name in full.

Postoffice and County.

Date and College of Graduation.

Recommended by (some Fellow of the Society).

Each application for Fellowship must be accompanied by the Initiation fee (two dollars), which fee must be in hand before the application can be considered by the Committee on Nominations. (See page 326, *Transactions* 1877.) If the application is accepted by the Committee on Nominations, the fact is promptly announced to the Society, and the vote is immediately taken. If the party is elected, he at once shares all the privileges of Fellowship. Should he not be elected, the Initiation fee is returned.

Those who apply for Fellowship must be recognized as Regular Physicians, in good standing in the community in which they reside.

